Government of Karnataka

Expenditure Reforms Commission

FOURTH REPORT

June 2011

(For Official Use Only)

Chairman:

Shri B.K. Bhattacharya, Retired Chief Secretary, Government of Karnataka.

Members:

Shri Mohandas Pai, Former Director (Human Resources), Infosys, Bangalore.

Shri G. Ramesh, Associate Professor, Centre for Public Policy, IIM Bangalore.

Principal Secretary to Government, Finance Department.

Principal Secretary to Government, Planning, Program Monitoring and Statistics Department.

Expenditure Reforms Commission

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No. ERC/BLR-REPT/4/2010-11 30th June 2011

Dear Shri. Nagarajan,

I have great pleasure in forwarding to you the Fourth and Final Report of the Expenditure Reforms Commission. This report covers recommendations regarding the Departments of Forests, Ecology and Environment and the Rural Development and Panchayat Raj, and also suggestions relating to some of the generic issues in the TOR viz. Levy of User Charges, Subsidies, Institutional Mechanism for Service Delivery and Performance Monitoring of Development Schemes and Programmes.

The Study reports from National Law School of India University (NLSIU), Bangalore in respect of two Departments viz. Law, Justice and Human Rights and Home (Police) are still awaited. As and when they are received, they will be forwarded to the Government separately by the Secretary ERC in due course.

These four reports of the ERC may be circulated among the Secretaries to Government, Heads of Department, Chief Executives of P.S.Us, Urban and Rural Local Bodies concerned, and also the Universities, Research Institutions and other individuals / Institutions in the state and outside as the Government may deem appropriate, with a view to initiate informed discussion and debate regarding Expenditure Management by the State. The Government may also consider bringing all these Reports in the public domain, along with the Reports received from the Consultants.

Finally, I would like to thank you for your co-operation, support and valuable suggestion / comments extended to the Commission from time to time.

Yours Sincerely,

B.K Bhattacharya
Chairman

Shri L.V Nagarajan,
Principal Secretary to Government,
Finance Department,
Vidhana Soudha,
Bangalore.

Copy to:

1. Shri Sanjiv Kumar Principal Secretary to Government, Planning, Programme Monitoring and Statistics Department, M.S Building, Bangalore and member ERC
2. Shri Mohandas Pai, Former Director (Human Resources) Infosys Ltd and member ERC
3. Shri G. Ramesh, Professor, IIM, Bangalore and member ERC
4. Shri Ajay Seth, Secretary to Government (B & R), Finance Department.
5. Shri P.R Devi Prasad, Director, FPI, MSIL House, Bangalore.
6. Shri R.S Phonde, I/c Secretary, ERC.

Contents

Preface

An announcement was made by the Hon'ble Chief Minister in the Budget Speech 2009-10 that a review of government expenditure would be carried out with a view to enhance the efficiency and effectiveness of various programmes of the State. Following upon this, the Government of Karnataka, vide Government Order No. FD 76 Samaya 2009 dated 6 June 2009, constituted the Expenditure Reforms Commission (ERC) with wide ranging terms of reference to examine the efficacy and efficiency of programme implementation in certain major Departments, and to review certain generic issues such as subsidies, user charges, performance monitoring, institutional mechanisms for effective public service delivery, etc. The Chairman of the Commission assumed charge on 22 June 2009.

The infrastructure for the Commission was in place after some initial delay, but key support personnel, particularly a full time Secretary, were not posted to the Commission. Shri R. S. Phonde, Special Officer (PWD FC) and Ex-officio Deputy Secretary to Government, Finance Department functioned as Secretary on in-charge basis throughout the term of the Commission. The posts of other essential staff sanctioned to assist the Commission, viz. Under Secretary, Accounts Superintendent, Head Accountant, First Division Accounts Assistant, FDA /Assistants, Stenographers and Data Entry Operators, have effectively remained vacant. The Commission had to work with one Officer on Special Duty to the Chairman, a Clerk-cum Typist and two internal consultants (appointed on 1st December 2009 and 26th July 2010).

The resultant gaps in logistical, secretarial and research support were filled, to the extent possible, by the Fiscal Policy Institute (FPI) which is located in the same premises as the Commission office. The FPI also handled the entire accounting functions for the Commission. The Director FPI and his team of officers and staff provided commendable logistic support to the Commission. The Director himself took keen personal interest in facilitating the smooth working of the Commission, took part in its deliberations and field visits, and actively participated in the process of drafting the reports.

Shortly after assuming charge, the Chairman addressed personal letters to Principal Secretaries and Secretaries of the major Departments of Government seeking their suggestions on issues arising from the Commission's terms of reference that could be relevant to their respective Departments. Regrettably, there was no response except from a couple of officers. The Chairman also wrote individually to the Deputy Commissioners and Chief Executive Officers of select Districts, requesting them to review and suggest changes in current practices of submitting various reports and returns to Government. This effort also drew a blank.

The Commission engaged several academic and research institutions based in Karnataka viz. the Institute for Social and Economic Change (ISEC), Infrastructure Development Corporation of Karnataka (IDeCK), the Abdul Nazir Sab State Institute of Rural Development (ANSSIRD), the Centre for Budget and Policy Studies (CBPS), the Public Affairs Centre, The Karuna Trust, etc., to study the various issues covered by the terms of reference. The following domain experts in different fields assisted these Institutions in the preparation of the Study reports:

i. Prof. Seetharamu for finalising recommendations relating to the Education sector i.e. Primary, Secondary and Higher Education.
ii. Capt Raja Rao in the matter of Irrigation and environment aspects of Urban Development Department,
iii. Shri Jai Prasad on the subject of Roads and Bridges, and
iv. Dr. Jayadev in the area of Animal Husbandry and Veterinary Sciences.

The Commission also invited outside experts to share their experience and knowledge on specific matters relating to the terms of reference. Shri Manish Sabharwal of Team Lease made a presentation to the Commission emphasising the need for equipping students of vocational education with the expertise and skills to meet the requirements of prospective employers. Shri B G Jayaram, Associate VP and Head Project Management, Infosys shared his wide experience of project management in the private sector and elaborated on techniques that could be usefully adopted by Government Departments and organizations. Similarly, Smt. Kanchan Banerjee and Shri Ashok Kamath from Akshara Foundation provided useful insights regarding interventions needed in certain focus areas of pre-primary and primary education.

The Commission held forty two meetings. Many of these were attended by Secretaries / Principal Secretaries and other officers of Government Departments, and by representatives of the Research Institutions engaged by ERC. Apart from this, the Chairman conducted several meetings with officers of the Departments concerned to deliberate on issues highlighted by the independent consultants. The Commission also visited the following Departments and Organisations for a more intensive interaction on specific issues:

i. the Karnataka Power Transmission Corporation Limited (KPTCL) for interaction with officers in the Energy Sector, where a presentation was made by Additional CS to Government, Department of Energy, Chairman KPTCL, MD KPCL, and others,
ii. the office of the BWSSB,
iii. the Commerce and Industries Department,
iv. the Departments of Agriculture, Horticulture, Primary and Secondary Education, Social Welfare, Municipal Reforms Cell in Urban Development and others.

In order to supplement the assessment made by the consultants, who had carried out a limited extent of field study, the members of the Commission decided to visit some Districts to acquaint themselves with problems in program implementation at the grass root level. Accordingly, the Commission members, accompanied by representatives of the Consultant Institutes, visited the districts of Shimoga (May 2010), Dharwad (May 2010), Chamarajnagar (November 2010) and Bidar (November 2010).

The Commission has so far submitted three reports. The First Report submitted in February 2010 contained recommendations on certain prudential principles governing the management of Government expenditure, viz. inter-sectoral prioritization; organizational structure and review of the schemes of six Departments; and proposals for dropping and merging of certain schemes.

The Second Report submitted to Government in February 2011 dealt with issues relating to twelve Departments viz. Primary and Secondary Education, Higher Education, Health, Family Welfare and Medical Education, Social Welfare, Minorities Welfare, Women and Child Development, Employment and Training, Agriculture, Horticulture, Fisheries, Animal Husbandry and Veterinary Sciences, Cooperation and Agricultural Marketing. In addition, the Second Report also dealt with a few common subjects viz. Review of Public Expenditure, Pre-investment Appraisal, Legislative Control over Expenditure and Executive Control over Expenditure.

The Third Report was submitted in May 2011. This dealt with three Departments, viz. Public Works, Water Resources and Urban Development. As these Departments deal with the development of infrastructure, they are ideally suited to adopt a project management mode for implementation of their schemes This Report therefore also included a chapter on Project Management.

The present Report has 7 chapters. Chapters two to five deal with the generic subjects of: a) User Charges, b) Subsidies, c) Institutional Mechanisms and d) Performance and Outcome Monitoring Framework. The last two chapters discuss the functioning of the Forest, Ecology and Environment Department and the Rural Development and Panchayat Raj Department. The discussions in these chapters are based on the study reports of independent consultants, viz. a report by ISEC on Subsidies, Performance and Outcome Monitoring, Department of the Forest, Ecology and Environment; CBPS reports on User Charges and Institutional Mechanism; and a report by ANSSIRD on the Rural Development and Panchyat Raj Department.

The study of selected issues pertaining to the Home Department (Police) and the Law Department (conduct of Government Litigation) was entrusted to the National Law School of

India University (NLSIU). These Study reports are still awaited. In the meanwhile, the ERC's term expires on 30.6.2011. (The office of the Commission under the I/c Secretary will continue to function for one more month thereafter to take care of residual office work of the Commission.) The Commission has decided that the reports received from the National Law School of India University, as and when they are received, could be forwarded to the State Government by the Secretary of the Commission.

These last two years (from June 2009 to June 2011) have been an interesting and rewarding journey down memory lane for me. I have had the opportunity, ten years after retirement from active service, to interact once again with a large number of State and field level officers of the Government, and elected representatives and Panchayat Raj officials in the Districts, and to discuss with them the intricacies and challenges involved in the implementation of Government's development and welfare schemes, and in the delivery of services through different public agencies.

It has been a valuable learning experience about current grass root level problems in the functioning of various Government Departments and Agencies, and about some bottlenecks and difficulties encountered in reaching the benefits of welfare programmes (scholarship to SC/ST students, Old Age / Widow Pensions, etc.) to the doorsteps of the beneficiaries. The recommendations contained in these four reports of the ERC are based on these shared experiences of the Commission members and of the functionaries of the ERC and the FPI connected with this exercise.

The Commission would like to place on record its deep appreciation of the co-operation and assistance rendered by the officers of the Government of Karnataka and its various agencies who have interacted with the Commission over the last 2 years. We are also thankful to the Research Institutions / Consultant organisation / Domain experts / other outside experts who have contributed in manifold ways to the finalisation of the reports of the Commission.

The Commission is thankful to Shri M.R. Sreenivasa Murthy, Former Additional Chief Secretary Finance Department and Shri L.V. Nagarajan, the present Principal Secretary, Finance Department, Smt. Sobha Nambisan, former Principal Secretary, Planning Department and Shri Sanjiv Kumar, present Principal Secretary, Planning, Programme Monitoring and Statistics Department, Shri Ajay Seth, Secretary (B&R), Shri Anil Kumar Jha, Secretary (Expenditure), Finance Department and all the other officers of the Finance and Planning Departments who have provided necessary support, assistance, guidance and inspiration to the Commission over the last 2 years.

As in the case of the three previous reports of the Commission, very valuable contribution to the drafting of this report has been received from Shri P.R. Devi Prasad, Director, FPI and

Shri R.S. Phonde, I/c Secretary of the Commission, and a very important additional contributor to the present effort has been Shri Srinivas Kumar, Advisor, FPI. They have been ably assisted by Shri Mandar Nayak and Ms. Prathiksha Shetty, in-house Consultants of the ERC. The Commission gratefully acknowledges the contribution made by all of them in the process of drafting of this report. The Commission takes this opportunity to acknowledge the services rendered by Smt. Sasikala, OSD to the Chairman, Smt. Lokamba, clerk-cum typist and other staff of the Commission who have contributed significantly to the smoother functioning of the office of the Commission during the last two years.

Finally, as Chairman it is my very pleasant duty to thank you and my other fellow members of the Commission Shri Sanjiv Kumar, Principal Secretary, Planning, Programme Monitoring and Statistics Department, Shri Mohandas Pai, former Director (Human Resources) Infosys Ltd and Shri G. Ramesh, Professor, IIM, Bangalore who have actively participated in the deliberations of the Commission and have given innumerable insightful suggestions that have enriched and improved the quality of the Commission's report.

In these four Reports, the ERC has made 292 recommendations aimed at making government expenditure more effective and purposeful. The Commission hopes that follow-up action taken by the Government on these recommendations will contribute in some perceptible degree to improving the nature and quality of public services, and thereby make some meaningful impact on the welfare of the people of Karnataka.

B.K Bhattacharya
Chairman, ERC

Summary of Recommendations

User Charges

1. Despite the felt need for user charges, there is no stated policy on the subject. The Commission is of the view that the government should articulate a clear policy on user charges so that it is firmly on the agenda of every Department. While the government may draft a detailed User Charges Policy, this Report provides a basic framework. (Para 2.12)

2. The Commission recommends that a) that the power to set tariffs be retained with ULBs and Water Boards; and the State Water Regulatory Authority, when set-up, may design a comprehensive policy detailing tariff setting principles, cost recovery goals, service delivery standards, which the city-level service providers will have to adhere to and b) the Water Boards and ULBs be encouraged to set the tariffs as scientifically as possible. For this, if required, they may take assistance of a professional body of experts. (para 2.26)

3. It is recommended that KUWSDB must devote adequate resources, financial and technical, to ensure that all ULBs achieve 100% metered connections within the next 2 years. (para 2.27)

4. As WUCS are important instruments in proper management of irrigation assets, the Commission recommends that the Water Resources Department should focus efforts to improve the formation of WUCS and help enhance their effectiveness through capacity building measures. (para 2.33)

5. The Commission reiterates its recommendation (already made in its Third report) that the State Government should expedite the constitution of a State Water Regulatory Authority which could function as a regulator for water use in the State (water for irrigation, drinking and industrial purposes). As far as drinking water supply is concerned, the Water Regulatory Authority would serve as a link between the Water Resources Department, city level water service providers, Municipal Corporations / Councils and the citizens. (para 2.39, para2.25)

6. The Commission recommends that while the government may undertake a review of road related taxes to bring them in line with various costs incurred for building and maintaining roads, it should immediately undertake a review of congestion pricing policies, existent in urban cities like London, Singapore and Hong Kong to draw up

feasibility scenarios for replication / adoption for Bangalore city which is facing severe traffic congestion problems. (para 2.49)

7. The GoK may also review their revision policy to keep a fixed increase in toll plus a variable component partially dependent on WPI movements. It is recommended that at least 60% of tax and tolls should be routed back to the sector for development and maintenance of roads. The Commission would also like to reiterate its recommendation made in the Third Report that a separate 'State Road Regulatory Authority' be constituted for, among other things, evolving and fixing road tariffs. (para 2.51)

8. Considering both tangible and intangible benefits arising out of the roads, the Commission suggests that road network consisting Village Roads and District Major Roads may be considered as pure public goods, and part of road network consisting State Highways, select District Roads may be considered as merit goods where partial recovery of costs could be considered and they be subjected to toll collection as per State Toll Policy. (para 2.51)

Subsidies

9. The Commission recommends that efforts be made towards feeder separation, introduction of High Voltage Distribution Systems (HVDS), metering of distribution transformers and control of supply as per policy. Distribution franchising and Electricity Services Company (ESCO)-based structures for efficiency improvement may be considered by the utilities. (para 3.21)

10. The Commission recommends that in tandem with separation of feeder lines and associated reforms in distribution, the distribution companies should undertake extensive energy audit to identify potential risk factors. (para 3.22)

11. In addition, in the opinion of the Commission the following are required to be attended to:
    a. Promote consumer education to apprise them on the imperative for tariff increases; and
    b. Expedite linking tariffs to service levels, performance improvement and tariff reforms (including Multi-year Tariff implementation as required by the Act);
    c. Strengthen the institutional capacity and corporate governance of utilities. Public sector companies, whether or not they have raised funds from the market, should follow the provisions of the Company Law in finalising accounts, appointment of independent directors, appointment of audit committees, and implementing the

Guidelines on Corporate Governance issued by the Department of Public Enterprises. (para 3.24)

12. The Commission recommends that the efforts to streamline the identification of BPL through proper verification and computerization should be expedited. (para 3.29)

13. After reviewing various subsidy Schemes in the agriculture sector, the Commission recommends that the government should comprehensively evaluate various subsidies being offered in the agriculture sector to get an idea of their cost effectiveness and impact on relieving distress of farmers. The Government should also examine other options e.g. insurance to mitigate the risks faced by farmers. (para 3.37)

14. The Commission recommends that interest free loan equivalent to assessed VAT value to industries be allowed only for small and medium industries to which such an incentive makes a difference. Even if the Government wants to attract industry by giving some incentives, it should be some selected industry, for which Karnataka does not bestow any special advantage such as availability of raw material. In other words, such incentives should not be given to units in cement and steel industries; on the other hand incentives may be justified for, say, automobiles. In any case loan amount should not exceed 25 percent of fixed costs, subject to conditions regarding VAT amount, employment generation, etc. (para 3.43)

15. As the state government continues to rely on concessions as an instrument to promote industry, the Commission recommends that there should be serious effort to track the revenue loss arising on account of all such Schemes. The government should try to prepare a statement of revenues foregone as done by the Union Government based on sample studies. It should be possible for the government to also devise ways by which some of the incentives are captured in the accounts of the government. For instance, concessional registration charge can be accounted as a receipt and the concession shown as expenditure. (para 3.44)

16. Current tracking of subsidy bill by the Government of Karnataka is limited to the budget head ‘106’. There are a number of other items, especially in the industrial sector that extend other forms of support for promotion of sales, purchase of raw material etc. The Commission recommends that the Government identify all such Schemes, however small they may be, and report the total subsidy bill of the Department concerned. (para 3.45)

17. The Commission is also of the view that the State Government should strengthen the infrastructure in the state - particularly power and road network, as ultimately it is the

adequate availability of industrial infrastructure that plays a greater role in the industrial development of a region rather than the incentives and concessions. (para 3.47)

18. The Commission recommends that the government should on priority make a systematic forecast of housing needs and funds needed to meet them. Once these are in place, it should be possible to a) target the subsidy to districts where there is a need and b) gradually decrease the quantum of subsidy in this sector. (para 3.59)

19. In view of substantial funding for rural housing Schemes by the Central Government, the Commission suggests that the state government could consider increasing the support to two urban housing Schemes viz. Urban Ashraya and House Sites to meet the unmet urban housing needs in the state. (Para 3.60)

20. Considering the large gap in recovering the cost of providing secondary and higher / technical education, it is felt that there is scope for levying higher tuition fees from students from APL households. (para 3.64)

21. The Commission is of the view that there is no economic rationale to subsidize tertiary medical care for people who can afford to pay for such services or underwrite expenditure on medical education when a person pursuing medical education can generally be expected to come from a reasonably well-to-do background. This does not preclude the government from providing subsidy to persons from economically weaker sections of society. Therefore, the Commission reiterates its recommendation already made in its Second Report (para 17.26) that the government should collect user charges from APL patients for healthcare services in tertiary hospitals, while continuing to provide subsidized treatment to the BPL households. Similarly, tuition fees for medical education should be suitably enhanced while providing relief to students from economically weaker sections**.** (Para 3.67)

Institutional Mechanism for programme Implementation and Service Delivery

22. The planning Department at the state level is in a better position to provide strategic leadership, set priorities and also suggest systemic changes in the line Departments. For instance, studying the linkages between State budgets and sector specific implications on GSDP; challenges in identifying activities which have potential for PPPs, putting in place appropriate evaluation standards, improving statistical systems, and challenges in technology and innovation, securing energy future, enhancing capacity for growth, enabling efficient markets. Accordingly, the planning Department should be reorganised and system capacity be built up to address the emerging challenges. (para 4.11)

23. The Commission is of the view that the Principal Secretaries of the three Departments viz. Department of Planning, Department of Administrative Reforms (AR) and e Governance should be brought under an Additional Chief Secretary for coordinating government's efforts to derive maximum value for its interventions and investments. (Para 4.12)

24. The Commission is of the view that the institutional mechanism of empowered committees be further strengthened so that approvals are not delayed. (para 4.14)

25. The Commission urges the government to exercise caution while creating special purpose vehicles for scheme implementation or service delivery. The government should carry out a comprehensive zero-base review of all parastatal organizations to see how many of them are still relevant in terms of the original objective with which they were set up; how many of them have their accounts audited up to date; what is their financial status; and so on. The government should wind up those whose continued existence cannot be justified on grounds of relevance in present day context or if the objectives of that SPV are being met by another. (para 4.24)

26. The Commission recommends that the Government should adopt explicit criteria for choosing to create a SPV. If the SPVs in the state have to function as executive agencies, they must be provided financial and operational autonomy while ensuring that there are sufficient measures guaranteeing accountability, transparency and oversight. In order that the SPVs function independently and professionally and they can be held accountable for their performance, the government should maintain arm's length from them by strictly entrusting their management to an independent and competent Board of Directors. (para 4.25)

27. Barring the State Schemes / projects, it would greatly help if the funds provided to local bodies are completely untied where the local body could take a view on how much to spend on what scheme. It would give them much more ownership and involvement in implementation with positive outcome. It may, of course, be necessary to provide some checks and balances, for instance a cap on how much can be spent on salaries. Even better from control viewpoint would be if the local bodies can actually prepare plans based on local needs which then can be vetted by the state government and necessary funds provided for them in the budget. This way the planning becomes bottom-up and local bodies can be held accountable. (para 4.29)

28. The Commission recommends that the Government review all the subsidies from the standpoint of alternative delivery mechanisms to optimize their outcomes. (Para 4.36)

Framework for Assessing Performance and Monitoring Outcomes

29. The Commission suggests two refinements to MPIC – a) monitoring of progress of activities be limited up to only District level officers; and b) monitoring at higher levels be prioritized so that high value Schemes (say the 20% in number contributing to 80% in value) are monitored on a monthly basis and the balance reviewed on a quarterly basis. (Para 5.22)

30. The Commission recommends that the Government should strengthen the practice preparing Programme and Performance Budget by making it mandatory for Departments in social sector and gradually extending it to all Departments. The Government should also take forward the initiative of setting up a performance evaluation authority or unit. It is advisable to have a centralized evaluation unit in order to ensure quality control and optimally use the scarce expertise in this domain. (Para 5.23 & 5.24)

Departments of Forests, Ecology and Environment

31. There is a need to closely look at the implementation of Development of Degraded Forest Scheme during the year 2009-10, particularly because there is no proper mechanism to learn from the previous plantation exercise. Local people's opinion about the plantation should be taken into consideration prior to the implementation of the scheme. Before plantation, the forest Department should hold a workshop in the region where the plantation is to be carried out. A socio- economic survey is also necessary to find out the priorities of both poor and non-poor farmers. (para 6.10)

32. Care should be taken to ensure that the promotion of tourism in and around the State forests, particularly the protected areas, does not compromise the interests of flora and fauna. Eco-tourism development requires a complete set of institutional, environmental and technology inputs which are coherently integrated with the natural habitat. The Forest Department should prepare a pre-project investment appraisal for expansion of existing facilities or for investing in new projects. However, while prioritizing the activities and allocating the budget, the role of the local community in promoting eco-tourism needs to be properly recognized and the suggestions and a mechanism to capture the perceptions of tourists should be considered. (para 6.11)

33. Labour intensive Schemes with a substantial component of earthwork that cannot be reliably measured (digging of pits) and of doubtful efficacy (poor percentage of survival of seedlings) lend themselves to abuse and hence need to be thoroughly revamped and streamlined for accountability. It is suggested that a priority list of the potential areas for planting should be prepared under greening of urban areas before

the forest Department takes up any new plantation. The Forest, Ecology and Environment Department in its work with urban bodies should also explore the opportunities to evolve strategy for disposal of solid waste using Clean Technology in such a way that urban bodies' capacity is enhanced for counting and taking advantage of carbon credits. The Department should evolve suitable guidelines to identify and prioritise urban areas with needs for implementing a comprehensive Environment and Ecology programme. (para 6.12)

34. The Commission recommends that the investment made for planting of seedlings should be followed up with regular monitoring of trees planted under the program. The Department should prepare and publish an annual report providing an account of the trees planted under the programme which could be used to understand and document the survival rate of the seedlings planted. (para 6.13)

35. It is recommended that the Forest Department review its State budgetary allocation towards various Schemes that have the objective of forest regeneration and conservation; while making optimal use of financial resources available with CAMPA funds in line with Supreme Court directions in letter and spirit. (para 6.14)

36. The cultivation and sale of medicinal and aromatic plants will be successful only if their efficacy and safety are clearly established and certified by a recognized authority, and if the farmers can get a remunerative price for them from pharmaceutical firms, individual consumers, or other interested buyers. There is a need to identify good research institutions in the public and private sectors to take up the necessary scientific analysis, documentation, etc., to validate the utility of these products for medicinal purposes. Innovative / progressive farmers should also be encouraged to take up MAPs cultivation in a bigger way. (para 6.15, para 6.16)

37. There is a need for the forest Department to work in tandem with other government Departments for effective implementation of its Schemes and optimum utilization of its limited resources for the protection and maintenance of the forest resources. In this regard, the Forest Department in co-ordination with the Agriculture Department can motivate farmers to shift cropping pattern in favour of crops that are not attractive to wildlife, by weaning the farmers away from crops like banana, sugarcane which attract wild life particularly the elephants. To avoid man-animal conflict, the Department needs to devise special measures to educate the farmers about appropriate cropping patterns in farms near the forest areas. (para 6.21)

38. An effectively coordinated enforcement mechanism for monitoring of activities in forest areas should be put in place by the government. Such mechanism should be

manned by officials of Forest Department, Commerce and Industries Department, Commercial taxes Departments, weights and measures inspectors, and officials of transport Department, police officers and officials of Revenue Department. Such enforcement mechanisms also should have powers to monitor enforcement compliance, progress in prosecution of offenders. The Government should use research based inputs for a transparent and objective moderation of state forest and mining policy from time to time. The Finance and Forest Departments also need to explore the possibility of disclosing the details of firm-wise tax collected from top 100 mining firms, along with demand raised and arrears to be collected, in public domain every half year. (para 6.23)

39. The Forest, Ecology and Environment Department should ensure a regular audit of the reports on the reclamation and rehabilitation plans prepared for greening of forest areas. This would require permitting mining activities in forest areas based on objective based priorities, which need to be established by using modern technology like remote sensing and GIS to help maintain ecological integrity and forest landscape in the state. As such this would require collaboration with Karnataka State Remote Sensing Applications Centre (KSRSAC) which can study detailed technical aspects for balancing short term and long term priorities of mining in forest areas. (para 6.24)

40. The Commission is of the view that for the items of work common to the various Departments, a separate Committee could be established to list out the items of work common to the Departments and sanction rates to be commonly followed by the Departments. The Committee could be formed with members from the concerned Departments to ensure that concerns of each Department has been included. Further, for items of work which are the expertise of the specific Department, the concerned Department could approve the rates, to be followed by other Departments. The Committee should establish standard definition and turnout for productivity norms of the manpower and machinery employed, to be followed for the calculation of rates of the Departments. The established norms for the efficiency of the works could then ensure a common base for the sanction of rates by the Departments. (para 6.25)

41. All the major expenditure related decisions of the Forest Department must be subjected to the rigour of Project Appraisal, and the returns on investment have to be carefully assessed. For this purpose, appropriate appraisal techniques, including green accounting for better valuation of eco-system services across the State, should be put in place. The project appraisal should also internalise the relevant Environmental audit guidelines prepared by CAG in 2010. This would facilitate the Department to plan and prepare itself to subject its activities to overall environmental audit. (para 6.26)

42. There is an urgent need to put in place a reliable and IT induced monitoring system to track the forest expansion/regeneration in a systematic manner including the quality of expansion in forest cover. Doing so would also enable the Department to put in place reliable mechanism to measure carbon credits which would have immense tradable advantage to the state. The Department has to take advantage of expertise available with Directorate of Economics and Statistics, e-governance Department as also with Fiscal Policy Institute to build HR capacity in this direction. (para 6.27)

43. Sustainable flow of ecological resources is important for the sustainability of any region. Creating protected areas has an impact on the livelihood options of the people living in forested areas. There is a need to develop an appropriate approach that would link sustainability of livelihood in a region and its effect on the ecosystem. This could provide a basis for evolving alternative policy options for decision takers and policy makers. (para 6.28)

Department of Rural Development and Panchayat Raj

44. There should be a system to ensure that the employment under MGNREGS accrues to the local beneficiaries within the jurisdiction of the Gram Panchayats. The Gram Panchayats need to be supported in terms of training for proper screening of the beneficiaries before allocating employment. In this regard, initiatives with regard to convergence of welfare and development activities with MGNREGS, could be appropriately adopted. In order for the MGNREGS works to be taken up based on local needs, a better and effective participation of local persons in identification of works is desirable. The Information Technology interventions in terms of GPS (Geographical Positioning System) and biometric job cards could be appropriately adopted to ensure equitable benefits with less scope for leakages. (para 7.17)

45. The Commission in its 2nd report has emphasized the need for social audit in various programmes. Care should be taken that the effectiveness of Social auditing is not diluted while upscaling social audit in MGNREGS. As such the monitoring of productivity/turn out requires to be done with due care and attention by suitably trained supervisors. Such linkage of wage to turnout needs to be extended to all wage programmes implemented by various government Departments, in Irrigation Department, PWD, Forest Ecology and Environment Department and Agriculture Departments. (para 7.18)

46. The Self Employment programmes could be effectively implemented by ensuring active participation of credible NGOs in conducting training programmes and

marketing support. The programme could be implemented through groups and effectively co-ordinated through co-operative societies with a view to bring down the costs of operations. Also, institutionalizing a continuous and regular feedback program from the beneficiaries would help the Government to continuously improve and adapt its training modules to the needs of the beneficiaries. These suggestions may suitably internalized into National Rural Livelihood Mission (NRLM). (para 7.22)

47. The Commission, while appreciating the convergence efforts of the RDPR Department is of the view that the RDPR Department should extend similar efforts in other Department viz. Agriculture, Water Shed development, Forest Department to achieve economy of efforts between the development objectives of the Schemes of the Departments. For instance, the afforestation efforts of the forest Department could be dovetailed with the employment objectives under MGNREGS. Similarly, planting of seedlings, watershed development programmes and the employment objectives under MGNREGS and SGSY could appropriately and jointly met by dovetailing the programmes with Water supply and Sanitation Schemes. (para 7.34)

48. Water Supply and sanitation campaigns need to be reinforced with wider and deeper literacy campaigns to quell misconceptions which have persisted through generations and spread awareness about efficient use of water. The literacy and awareness campaigns need to be directed to bring about behavioural, cultural and attitudinal changes among the community towards good sanitation practices and optimal use of water for domestic and sanitation purposes. (para 7.37)

49. The TSC programme needs to be implemented by identifying and addressing the local constrains towards construction and use of toilets. In cases where pour flush toilets may not be feasible, the TSC programme should be supported with adequate technical training programmes in use of ecological sanitation concepts. (para 7.38)

50. In an eco-sanitation approach, the waste is treated by dry storage and by soil composting systems i.e. by adding soil, wood ash and leaves. The eco toilets could be effectively made use of as a solution to sanitation as well as a reliable and low cost water conserving technology. (para 7.39)

51. There is need to review the various housing Schemes implemented in the State. Since the housing Schemes are implemented at Gram Panchayat level, there is also a need to reconcile the database of the waitlisted houseless at state level in order to avoid duplication of beneficiaries and ensure provision of housing to the intended beneficiary. It is necessary that the Department in collaboration with Rajiv Gandhi

Rural Housing Corporation makes medium term forecasting of demand for houses under various Schemes. (para 7.46)

52. The RDPR Department should ensure training and orientation of the officers at GP and TP level to effectively monitor the construction of the houses under the housing Schemes. Further the engineers at GP and TP level should be trained to provide technical support to the beneficiaries of the housing Schemes for economical and cost effective housing solutions. (para 7.47)

Chapter 1 - Introduction

1.1 This Report deals with the following specific terms of reference given to the Commission:

i. Suggest an effective strategy for meeting a reasonable proportion of expenditure on services through user charges;

ii. Review the framework of all subsidies, both explicit and implicit, examine the economic rationale for their continuance and make recommendations for making subsidies transparent and suggest measures for maximizing their impact on target population at the minimum cost;

iii. Review the process of institutional mechanisms of programme implementation and service delivery to improve efficiency and cost effectiveness;

iv. Suggest a framework for performance and outcome monitoring of the development Schemes / programmes;

v. Review efficacy of programmes / Schemes of major Departments [Forest, Ecology and Environment Department and Rural Development and Panchayat Raj Department are covered in this Report).

1.2 Ever since India embarked on the path of planned economic development, there has been increasing pressure on Government expenditure to meet the needs and aspirations of the people in different spheres of development such as, education, health, nutrition, welfare of disadvantaged sections of society, infrastructure development, improving production in different sectors of the economy, etc. There has been a proliferation of Government Departments and programmes and a corresponding increase in the number of institutions and staff for implementing these Schemes, and for providing services to the citizens.

1.3 During the initial decades, the growth of national income had always fallen short of expectation. In the absence of sufficient buoyancy in growth of taxation, Government would meet its ever growing expenditure by increasing tax rates and resorting to more and more borrowing. Now, however, in States like Karnataka and Tamil Nadu the tax:GSDP ratio has already reached a very high level of around 12%. Moreover, continuous increase of the State's debt burden is not a sustainable option. High tax rates often lead to evasion and diversion of trade and business, and a high debt:GSDP ratio would make the State an unattractive destination for investment in long gestation infrastructure projects, many of which are implemented these days by way of Public Private Partnership (PPP) .

1.4 It is therefore necessary for the State to supplement its tax revenue with different forms of non-tax revenue, including the levy of user charges. Failure to do this would result in reducing the fiscal space of the Government, implying thereby that Government would be unable to provide resources for genuine public good or merit good. Moreover, experience has shown that concessions by way of reduction or waiver of user charges that should have been given only to the deserving are often also extended to persons with the capacity to pay. Similarly, many undeserving persons are receiving subsidy due to faulty targeting. This has an adverse impact on allocative efficiency in the economy (as, for example, wastage of scarce resources such as power or water), and also on the income distribution pattern in the society. The various economic and administrative issues pertaining to levy of user charges and provision of explicit and implicit subsidies have been discussed in Chapters 2 and 3.

1.5 The effectiveness of programmes and Schemes depends on the efficiency of the institutional mechanisms for their delivery. Starting from the designing of the Scheme to its final implementation, there are systems, procedures and processes that define the roles of different players and lay down the manner in which they should carry out their expected tasks. Flaws in any of these elements would lead to de-railing of the Scheme and non-realization of its objectives. Two of the most common deficiencies identified in cases of faulty implementation of Government projects are chronic delays and leakage of funds and other resources. In order, therefore, to maximize value for money spent, Government must focus greater attention on having effective institutional mechanisms. There have been suggestions from academics, administrators and other experts, based on experience in other countries, regarding changes and improvements to delivery mechanisms, especially with respect to reaching essential commodities / services to the poor. Cash transfers, coupons, smart cards, etc., are among the alternatives suggested. In Chapter 4, these and other institutional mechanisms are examined.

1.6 Monitoring of performance and outcome constitutes the final vital stage in the total process. A sound framework for periodic assessment of performance and outcomes is essential to enable any Government Department to effectively oversee and monitor the implementation of its programmes. While some systems of monitoring are currently in place in many Departments, many of these are not adequately robust or relevant to meet the requirements of Government. Whether one system could cater to all Departments at all times, or whether there is a need for more customized systems for individual Departments are some of the questions studied in Chapter 5.

1.7 Chapters 6 and 7 carry an assessment of functioning of two Departments viz. Forest, Ecology and Environment; and Rural Development and Panchayat Raj. In the earlier reports, the Commission dealt with fifteen other major Departments including Education, Health, Social Welfare, Women and Child Development, Minorities Welfare, Agriculture, Public Works, Water Resources, Urban Development, etc. Study of selected issues of the Departments of Home (Police) and Law, Justice and Human Rights (Government Litigation) have been entrusted by the Commission to the National Law School of India University. Their Reports are awaited. As and when received, that Report will be forwarded to Government by the Secretary of the Commission. With that, the Study of the selected important Departments by the ERC will be treated as completed.

Chapter 2 - User Charges

Introduction

2.1 There is ever increasing demand on the government to augment its resources to meet the expenditure commitments. User charges are seen as a measure to not only shore up the government's receipts but also as a mechanism to ensure rational use of scarce resources and accountability on part of service providers. The importance of user charges as a fiscal policy instrument has been underscored by successive central Finance Commissions which have made strong recommendations in their favour.

2.2 While Eleventh Finance Commission recommended levy and periodic revision of user charges, the Twelfth Finance Commission recommended that the grant for PRIs be utilised to improve service delivery in respect of water supply and sanitation Schemes subject to their recovering at least 50 per cent of the recurring cost in the form of user charges. It had also identified 14 best practices including enhancing taxation powers, levy of user charges, etc. Commenting on the irrigation sector, the Thirteenth Finance Commission (TFC) observed that cumulative public investment in the irrigation sector of over ₹250,000 crore at the end of the Tenth Five-Year Plan (2006-07) not only did not yield any return but receipts from the sector did not even cover the expenditure on their operation and maintenance. The TFC strongly recommended levy of adequate user charges in irrigation and road sectors, among others.

2.3 Over the last few years, many State governments including Karnataka Government have allowed certain public service providers such as hospitals to levy user charges. They have been allowed to retain user charges collected by them to meet the costs of small repairs, stationery and other office supplies lack of which often leads to poor quality service.

Analysis of revenue and other receipts

2.4 A user charge being a charge per unit of service supplied (received) is unlike a tax where the concept of quid pro quo does not apply. User charge, thus, forms part of non-tax receipts of the government. Although there has been, as mentioned above, a lot of emphasis on collection of user charges in various policy documents, presently it forms a very small part of government's finances. The non-tax receipts, of which user charges is a component, formed just 8 percent of all revenue receipts of Government of Karnataka in 2009-10. In absolute terms, non-tax receipts were ₹ 3334 crore as against tax receipts of ₹ 37,939 crore. Of these the non-tax receipts from economic services were the largest at 4.5 percent or ₹ 1836 crore of which mining royalties were ₹ 858 crore. (Pl see table 2.1 below)

Table 2.1- Analysis of Revenues and other receipts

₹ in crore

	Actual 2009-10			Percentage
Total Revenues and Receipts			41272.39	100.0
A. Tax Revenue			37938.59	92.0
a) Taxes on Income and expenditure		5252.06		12.7
b) Taxes on Property & Capital Transactions		4622.10		11.2
c) Taxes on Commodities and Services		28064.43		68.1
B. Non - Tax revenue			3333.80	8
a) Interest Receipts		413.35		1.0
b) Other Tax revenue		2920.45		7.0
(i) General Services	845.87			2.0
(ii) Social and Community Services	238.60			0.5
(iii) Economic Services	1835.98			4.5

Source: Detailed Estimates of Revenue and other Receipts - Budget Documents

2.5 As the non-tax revenues comprise interest, dividends, fines, penalties, royalties, rents, fees, sale proceeds, agency charges, etc. (please see Table 2.2 below), not all of them being user charges, the actual amount of user charges collected at the government level is even smaller; it is approximately of the order of ₹ 300 crore i.e. about 9 percent of non tax receipts and less than one percent of total revenue receipts.

Table 2.2 - Analysis of Departmental Non Tax Receipts

₹ in lakh

Head of Account	Description	Actual 2009-10
0029-106-02	Fees for revenue records	331.90
0029-106--03	Mutation fees and other receipts	3302.75
0051-105-01	State Public Service Commission - Examination fees	1119.83
0055-101-01	Police supplied to Railways	120.44
0055-102-00	Police Supplied to other parties	920.30
0055-103-02	Receipts under Public Conveyance Act	334.68
0055-103-04	Fines for Traffic offences	4711.85
0058-102-00	Sale of Gazette	44.28
0059-80-011	Public Works - rents	352.85
0070-01-501	Administration of Justice - Services and Service fees	38.87
0070-60-115	Other Admin. Services - Receipts from Guest Houses	646.16
0075-800-02	Lease of Land to Bangalore Turf Club	25.94
Social Services		
0202-01-102-1-01	General Education-Secondary Education - Tuition fees-High Schools	4860.44
0202-02-101	Technical Education - Tuition and Other Fees	3009.85
0210-01-020	Urban Health-Receipts from patients	25.21

0210-02-101	Rural Health - Receipts from patients	4.65
0210-03-101 to 105	Medical Education - Tuition and other fees	178.38
0210-04-104-1-01	Public Health- Receipts under Prevention of Food Adulteration Act	64.33
0210-104-2-01	Public Health - Receipts under Drugs and Cosmetic Act	221.22
0215-01-102	Water Supply and Sanitation - Receipts from rural water supply Schemes	33.57
0230-101-01	Labour & Employment - Fees realized under Karnataka Shops and Commercial Establishment Act	530.45
0230-103-00	Fees for inspection of Steam Boilers	163.64
0230-104-00	Fees realized under Factories Act	465.42
0230-106-00	Fees realized under Contract Labour (Regulation and Abolition) Rules	36.61
0230-800-4-00	Receipts from ITIs	552.39
0230-800-5-00	Receipts from Production oriented training Schemes in ITIs	376.61
Economic Services		
0401-107-02	Crop Husbandry-Receipts from plant protection service	62.37
0403-102 to 109	Animal Husbandry-Receipts from various animal husbandry development projects	335.96
0405-011	Fisheries- Rents	358.39
0405-102	Fisheries-licence fees of inland fisheries, reservoir fisheries, etc.	51.88
0405-103	Sale of fish, fish seeds, etc.	150.88
0406-01-800-07	Receipts from afforestation	407.70
0425-101	Cooperation-Audit Fees	3223.88
0700-01 to 80	Major Irrigation- Various Projects - Sale of Water for irrigation-Water Rates and other indirect receipts	---[1]
0701-01 to 80	Medium Irrigation - Sale of water for irrigation	1657.18
0702-01 to 03	Minor Irrigation - receipts	1151.82
0801-01-201-01	Power- Hydel Generation-Royalty recovered from KPCL	5606.50
0851-101 to 800	Village and Small Industries- receipts, markets fees, licence fees, etc.	5040.56
0853-102	Non-ferrous Mining and Metallurgical Industries - Rents and Royalties	85831.53
1051-02-103	Ports and Light Houses - Registration and other fees	528.89
1052-101	Shipping - Survey Fees	6.36
1052-103	Shipping - Receipts from Shipping Services	1447.56
1054-102	Roads and Bridges - Toll on Roads - Ferry Receipts	82.30
1054-800	Roads and Bridges - Other receipts - Agency charges and other charges	3163.39
1056-201-1-01	Inland Water Transport-Ferry Services-Ferry Toll	42.65

Source: Detailed Estimates of Revenue and other Receipts - Budget Documents

2.6 The fact of the quantum of user charges being small points to two alternative possibilities - one, that there is a large untapped potential or that many of the services supplied at the government level being primarily public services are not suitable for levying user charges; and that services where user charges might be levied are actually being provided by agencies of government such as local bodies and parastatal organizations, and therefore are not reflected in governments books. The implication of this, as far as government is concerned, is that partial recovery or non-recovery of

[1] Neeravari Nigams and Water User Societies collected ₹ 19.6 crore towards water rates

cost of a service by an agency rendering public service is reflected on the expenditure side of government's accounts in the form of grant-in-aid (detailed head 101) and subsidy (detailed head 106). In other words, grant-in-aid and subsidy are the counterparts of user charges.

Table 2.3 -Top recipients of Grants-in-Aid

₹ in lakh

Major Head	Description	BE 2010-11	RE 2010-11
2202	General Education	123026.24	120081.47
2210	Medical and Public health	52680.18	51985.64
2217	Urban Development	50547.22	35426.70
2250	Other Social Services	16781.21	16772.32
2415	Agricultural Research and Education	15560.60	14902.20
2705	Command Areas Development (1)	11988.50	11265.18
2203	Technical Education	11859.57	11856.48
2515	Other Rural Development Programmes	9710.14	3664.53
2205	Art and Culture	8400.65	7774.16
2403	Animal Husbandry	7229.72	7175.86
2230	Labour and Employment	6077.40	3899.54

2.7 The government made a provision of ₹ 345707.88 lakh towards grant-in-aid in the budget for 2010-11. General Education, Public Health and Urban Development are the largest dispensers of grant-in-aid. While grants-in-aid in some cases may be unrelated to provision of any public service (e.g. Management Support to Rural Development Programme (SIRD) under Community Development), in quite a few cases they are given to Departments / organizations that provide public services on which user charge can be levied (e.g. educational institutions of higher learning). It may be argued in the latter category of grants-in-aid that if the service providing organization (say a Degree College) is able to raise enough resources through tuition and other fees to run its courses, there would be no need for government to support it with a grant.

Table 2.4 - Top recipients of Subsidy

₹ in lakh

Major Head	Description	BE 2010-11	RE 2010-11
2801	Power	444313.00	417057.00
2408	Food storage and ware housing	94954.07	92615.01
2425	Co-operation	33587.71	33165.59
3055	Road Transport	31711.37	7748.45
2401	Crop Husbandry	11396.66	7810.51
2217	Urban Development	9653.43	9053.43
2851	Village and Small Industries	3648.13	3191.97
2216	Housing	2455.00	2355.00
2852	Industries	1910.00	1062.75

2.8 In case of subsidies as well, there are no surprises with power and food topping the list. Of the ₹ 6388.09 crore provided by the government towards subsidies, power and food have accounted for ₹ 4443.13 crore (70 percent) and ₹ 926.15 crore (14 percent) respectively. Obviously, subsidies in food and agriculture are of a different class as they have more to do with transferring resources to targeted beneficiaries. However, some subsidies such as the subsidy to power sector arise due to partial / non recovery of costs from users e.g. power provided to farmers as a matter of policy. While subsidies might be explicitly provided in the budget under detailed head 106, increasingly they are being provided by tax concessions and waivers. This subject is dealt with in greater detail in a subsequent chapter. Suffice here to State that subsidies, as grants-in-aid, may result from poor recovery of costs by service providers and to that extent a policy on user charges should take into account the grants-in-aid and subsidies.

Rationale and determination of User Charges

2.9 There is a general agreement that user charges need to be revisited in all seriousness and leveraged for their multiple benefits. However, it is necessary first to be clear about:

a. What services may be subject to levy of user charges?
b. What specific objectives are sought to be achieved through the levy of the user charge as recovery of cost is not the only aim of user charge? and
c. How is the user charge to be determined?

As far as citizens are concerned, having paid taxes directly on personal income and indirectly on purchase of goods and services, they expect the government to provide services free of any further charges. If the government seeks to collect any charges, they need to be satisfied of the rationale for such a charge. Generally speaking, the government fulfils its sovereign functions of maintaining public order, providing a justice system, etc., through the taxes it collects from the citizens. In view of prevailing acute inequalities in income and wealth among the people of the State, it also has an important responsibility of redistributing income through various interventions. Additionally, it may provide a number of services to the citizens for which it may charge a fee. The basic qualification for a service to be so chargeable is that it is not a public good, which is distinguished by the following two characteristics:

a) ‘Rivalness’ - purely public goods are ‘non-rival’ in consumption, that is one person’s consumption of a service does not affect either the level or quality of consumption of that service by anyone else. For example, resolution of a dispute in a court of law by one person does not affect the utilization of the courts by others. Although in some cases, it may lead to congestion as in the case of roads or telecommunication or, for that matter, even courts, which impose costs on others in terms of delays, stress, additional expenses, etc. In economic terms, the marginal cost of providing non-rival goods is said to be zero.

b) Excludability - A person cannot be easily prevented from using the service without paying for it, for e.g. a public place such as a beach or a road.

2.10 Once it is established that the service proposed to be subject to service charge is not a public good, levy of user charge may be justified on one or more of the following grounds.

Financial Sustainability: This is perhaps one of the most important reasons for levy of user charges. The government makes large investments to create infrastructure in power, irrigation, roads, water supply and sanitation. It is expected that the operations and maintenance of these services are at least sustained by adequate user charges. As it happens, in the absence of reasonable rates of user charges, maintenance of these utilities suffers leading to poorer delivery of service which acts as a further disincentive for users to pay any charges.

Economic efficiency: User charges can discourage wastefulness in usage of a service because for anything that is available free there is no incentive to curb consumption. This is particularly relevant in case of power and water. They can also result in decongesting the use of a service by suitably raising the threshold as for example in case of road usage and parking.

Accountability: If user charges bring about responsible use of services on part of the users, they also make the service providers accountable to the users, who would demand efficient and good quality service because they are being made to pay for it.

2.11 It is important that the user charges are set in a transparent manner; they (the tariffs) are simple for users to understand and comply; and they should be predictable in the sense that they are stable over a period of time. User charges do not necessarily presuppose that everybody would be charged at the same rate. They can so designed that distributive justice is obtained by cross subsidization where the poor are provided relief through higher charges on the more affluent users. The difficult part is, however, to determine the user charge rates. There are several methods using the costs as a basis. Since the user charge is effectively the price being paid for the service, it has to factor in the demand for the service and its price elasticity.

Need for a User Charge Policy

2.12 Despite the felt need for user charges, there is no Stated policy on the subject. ***The Commission is of the view that the government should articulate a clear policy on user charges so that it is firmly on the agenda of every Department. While the government may draft a detailed User Charges Policy, the following provides a framework.***

2.13 Each Department should list all services that it provides to the public. For each of the service, the Department should follow the guidelines provided in the framework given in Annexure 2.a. It should ensure that a similar exercise is carried out by agencies that the Department supports through grants-in-aid, subsidy, loans, equity, etc. The first time exercise is important and should be undertaken with good care as thereafter the Department would only monitor the situation for making appropriate changes. All Departments should be required to review user charges being levied for services provided by them or their agencies every year at the time of making budget proposals. Finance Department should vet all proposals for grants-in-aid, subsidy, loan, interest payment and equity keeping in view whether the potential for user charges has been explored and utilized.

2.14 The Commission has examined the user charges in three sectors viz. water supply, irrigation and roads which are discussed in the following sections; it has made suitable recommendations relating to them.

User Charges in Water Supply

2.15 The water supply function is carried out by an autonomous statutory body such as Bangalore Water Supply and Sewerage Board (BWSSB) in Bangalore or by separate Departments under the city municipal corporation / council as in Mysore and Shimoga. They receive capital grants and loan assistance from the State government and technical services from associated parastatal bodies like the Karnataka Urban Water Supply and Drainage Board (KUWSDB).

2.16 Box 2.1 below presents the main tariff models followed in India for water charges. The Urban Development Department of Karnataka prescribed a two part tariff with a fixed component and an increasing block tariff in the variable component. The Urban Development Department (UDD) has directed all Urban Local Bodies (ULBs) vide Government Order No. UDD 204 UMS 95, dated 15.11.1996 to levy volumetric tariffs through the installation of meters. A Government of Karnataka Urban Water Supply Manual for Fixing Volumetric Tariff'' has been circulated to all ULBs in 2009. The manual has been prepared with the goal of cost recovery and in the long term to recover full cost of providing service including operation and maintenance cost, debt service and a reasonable return on capital.

Box 2.1 - Main Tariff Models

Tariff structures	Description	Methodology
Single part, variable tariff structure a) Linear uniform volumetric method	Users pay in direct proportion to their consumption. In most cases, water is provided at a subsidized tariff to the poor to ensure affordability	Average cost/KL is computed based on total water supplied and total cost incurred at various levels This average cost/KL is the base tariff charged to all customer groups. Subsidies to customer groups are provided on the base cost
b) Volumetric increasing block tariff method (IBT)	More than one price for water used, where each price applies to a customer's use within a defined block. Prices rise with each successive block. Water slabs are determined based on consumption pattern of the public. Per capita consumption norms defined for local bodies is taken as the base for this design	Average cost/KL is computed based on total water supplied and total cost incurred at various levels. Weights are derived based on water consumption norms and these define the corresponding level of per capita water consumption and depict the ratio of tariff in these slabs.
Single part, fixed tariff structure	When individual customers are not metered, a flat charge per month, irrespective of the volume of water used is charged.	Could be designed as a fixed charge per number of taps, size of the connection (ferrule). Or it could be a cess based on property tax or water tax
Two Part tariff	Combination of a fixed tariff and a variable	Combination of both variable and fixed tariffs is followed

The procedure for fixing volumetric tariff is as follows:

- Total costs are made up of establishment charges, power charges, chemicals and consumables, and other charges on periodic repairs and maintenance.
- Non-Revenue Water is taken at 15 percent i.e. net quantity of water supplied per year (in KL) = 0.85 * Gross quantity of water supplied per day at source point ('Z' MLD) * 365/ 1000
- Average cost of water per KL to be charged from customers =

  Total cost of supplying water in a year / (0.85 * Z*365)/1000

- The suggested tariffs and consumption slabs are as follows.

Box 2.2

Slab	Applicability	Tariff
0 – 8 KL	Lifeline supply for the urban poor. Around 55 Litres Per Capita Daily for 5 member household	50% * Average cost of water/KL (provide subsidy)
8 – 25 KL	Low & middle income group	Average cost of water/KL
25- 40 KL	Higher income group	Up to 1.5* Average cost of water/KL (disincentivise excessive consumption)
Above 40 KL	Very high income group	Up to 2 * Average cost of water/KL (disincentivise excessive consumption

The manual advises that ULBs revise water tariffs 3 years after the introduction of volumetric billing

Bangalore Water Supply and Sewerage Board (BWSSB)

2.17 The BWSSB was formed in 1964 and owns all water and sewage assets in the Bangalore city. It provides 900 Million Litres per Day (MLD) of water to the city and has 6.07 lakh metered connections. As per the Bangalore Water & Sewerage Sanitary Act, 1964, the BWSSB can levy rates, fees, deposits, taxes and other charges to carry on its operations. It has also the powers to vary such rates, fees and rentals from time to time to provide sufficient revenue. Apart from Operation & Maintenance (O&M) costs, the Board can also raise revenue to cover taxes, interest payments, provide for adequate depreciation and maintenance, contribute to pension fund, meet repayment of loans and other borrowings, finance year to year improvements, and provide for other such purposes beneficial to the promotion of water supply and disposal.

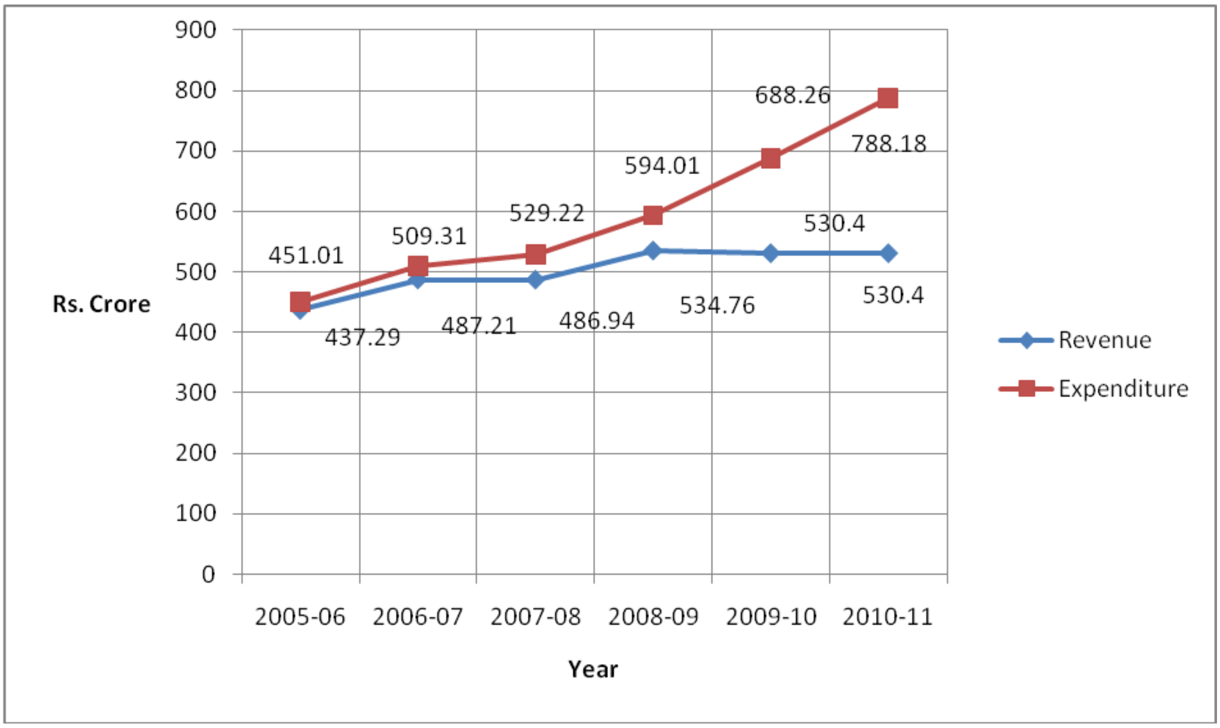
2.18 The BWSSB's current average cost of water supply with Unaccounted for Water (UFW) taken at 35% works out to ₹ 36.91 per KL. However, the tariffs fixed are so low (see table below) that this average cost is almost 6 times the lifeline tariff of ₹ 6. Even the next slab at ₹ 9/KL is highly subsidised. While the last two slabs are priced at the economic cost, they should actually be priced much higher in order to cross-subsidise the low-income households and also to discourage such high consumption. It can be seen that the current tariff rates in Bangalore do not satisfy the economic efficiency criteria.

Table 2.5 - Current Tariff rates - BWSSB

Consumption (KL)	Water Tariff ₹ Per Kilo Litre	Minimum Charges
0-8000	6	48
8001-25000	9	201
25001-50000	15	676
50001-75000	30	1326
75001-100000	36	2226
100000 & above	36	5826

2.19 The problem of poor water tariffs is compounded by archaic and weak water pumping systems leading to high percentages of Unaccounted-for-Water (UFW) losses and leakages; UFW in Bangalore according to BWSSB estimates is in the range of 35-40%. BWSSB's reported achievement of 100% metering and 99% revenue collection efficiency though noteworthy is not enough as the deficit between expenditure and revenue has been increasing over the years. While tariffs have remained the same since 2005-2006, the costs in the supply of water have risen by 43% (See figure below).

Figure 2.1



2.20 As mentioned in the Commission's Third report, BWSSB had submitted a proposal to the government for a tariff revision aiming at better cost recovery. The Commission reiterates its recommendation that a quick decision may be taken by the Government on the Board's proposal taking note of its weak financial position.

Vani Vilas Water Works (VVWW), Mysore

2.21 Vani Vilas Water Works (VVWW) is a wing of Mysore City Corporation (MCC), and handles water supply for the city. In addition to pumping water from the source, VVWW was also entrusted with maintenance of the water works systems. The water works in Mysore City is currently designed to pump 186.73 MLD to the city. The total number of water connections in Mysore is 134,081. However, of these only 33%, i.e. 48,270 meters are functioning. For the meters which do not function, charges are levied on the basis of the average 6 month consumption before the meter stopped functioning. This is likely to result in substantial loss of revenue for the water works, as 67% of domestic customers are not paying according to the actual usage. Despite the UDD Government Order (No. UDD 204 UMS 95) in 1996, directing all ULBs to ensure metered connections, compliance with the order has been poor.

2.22 Considering only the operations & maintenance costs and UFW of 33 percent, the average cost of supplying one kilo litre water works out to ₹ 4.56. Compared with the existing tariff, it is seen that the tariff for the second slab of 25 KL to 50 KL at ₹ 3.75/KL comes closer to average cost. The lowest slab at ₹ 2 per KL, if considered to be the lifeline supply, is subsidized by 54 percent. The highest tariff slab (at ₹ 10) is about two times the average cost. The slab rate is of little consequence when a majority of users are not paying as per actual use due to unmetered connections.

2.23 An interesting aspect of VVWW is partnership with a private firm in management. In December 2008, Jamshedpur Services Utility Company (JUSCO) was awarded a six-year performance based water management contract in a tripartite agreement with MCC and the KUWSDB. It was the first PPP project targeting water supply for an entire city on a 24/7 basis (all previous projects like the 24/7 project in Hubli-Dharwar-Belgaum have been pilots for sections of a city with populations less than 1 lakh). According to the Detailed Project Report (DPR) prepared by KUWSDB, the main problems associated with the existing water systems in Mysore were 'un-equitable supply, non-availability of adequate pressure in distribution mains, inadequate storage capacity of service reservoirs, inadequate size of distribution mains, old and dilapidated pipelines, illegal tapping of feeder mains at many locations, unauthorized house connections, faulty metering, inadequate operation and maintenance staff, adoption of inappropriate design methodology'. The project has three phases spread over six years. The first phase of twelve months will involve complete hydraulic remodelling of the present system and preparation of a capital investment plan. In the second phase of three years, JUSCO will rehabilitate the distribution network to reduce water losses and gradually increase various service standards. The third and final phase of two years will involve providing 24×7 water supply in the entire city ensuring sustainability of achieved service standards. In addition, JUSCO has taken over the management and maintenance of the supply system for six years, for which it will be paid ₹ 16.2 crore annually.

2.24 Generally PPP models in the water sector are looked at with suspicion and seen as euphemisms for privatization of the system. The Mysore project itself has reportedly been met with much opposition from citizens groups. In the case of Mysore, the large amount of loss of revenue water due to leakages, un-metered and unauthorized connections which VVWW lacked the technical and human resources to resolve. JUSCO's performance targets specifically include improving the collections of water charges, and reducing the difference between the quantity of bulk water supplied and the quantities for which revenue is collected (i.e. to reduce non-revenue water). The contract is more about operations and maintenance as JUSCO is not vested with ownership of any of the facilities or with decision making powers on fixing water charges.

2.25 In the last few years, a few States in India have taken the step of setting up independent water regulatory authorities. Maharashtra passed the Maharashtra Water Resources Regulatory Authority Act (MWRRA) in 2005, following a comprehensive State Water Policy in 2003 and water sector improvement projects in 2005. The main powers of the water regulatory authority are to regulate the distribution of bulk water supply, establish a water tariff system for levying water charges with a view to establishing a stable and self sustainable management of service delivery to users, and review and clear water resources projects. Uttar Pradesh, Arunachal Pradesh and Gujarat are also in the process of passing legislation towards the creation of separate water regulatory bodies. ***The Commission recommends that Karnataka should also pursue the route of setting up independent State Water Regulatory Authority to serve as a link between the Water Resources Department, city level water service providers, Municipal Corporations/Councils and the citizens.***

2.26 In handling water supply, several bodies take on administrative responsibilities viz. metropolitan-level water boards, State-level specialist agencies, water departments of city Municipal Corporation and councils. In the cases we have reviewed i.e. BWSSB and VVWW, the water boards and city corporations hold the power to determine the appropriate tariffs to be charged. While the UDD manual recommends subsidizing average cost 50% for the lifeline tariff by charging customers in the higher consumption brackets 1.5 to 2 times the average cost, such cross-subsidy will be effective only if tariff fixing is done scientifically. To illustrate, if a very small section of the population lies in the tariff slabs which are charged above the average cost of water, then the excess revenue generated will not be sufficient to meet the cost of the subsidy given to a larger number of customers in the lifeline tariff slab. There are many models available for determining the appropriate mark-up or mark-down above average cost in public utility services. One model that can be considered by the water utilities is the Ramsey-Wilson model with changing welfare weights, which achieves the goals of both economic efficiency (by recovering breakeven cost of the water supply system) and equity (by cross-subsidizing between higher and lower consumption category customers). To determine the subsidy, the model uses actual water consumption quantities and income measurements to determine price elasticity of demand for customers in different tariff slabs. Maximum welfare is given to consumers in the lifeline tariff slab by charging them the breakeven rate minus a subsidy, which has been generated by a mark-up for customers in the higher consumption categories. ***The Commission recommends that a) the power to set***

tariffs be retained with ULBs and Water Boards and the State Water Regulatory Authority, when set-up, may design a comprehensive policy detailing tariff setting principles, cost recovery goals, service delivery standards, which the city-level service providers will have to adhere to and b) the Water Boards and ULBs be encouraged to set the tariffs as scientifically as possible. For this, if required, they may take assistance of a professional body of experts.

2.27 The 2-part tariff consisting of a fixed charge and a variable Increasing Block Tariff, as applicable in Mysore and Bangalore, is generally preferred by experts because it ensures equity, cost recovery and water conservation. This tariff design should be followed for all metered connections. Furthermore, the Government should move towards charging according to a volumetric, metered basis across the State. Accessing funds from Centrally Sponsored Schemes (CSS) like the Jawaharlal Nehru National Urban Renewal Mission (JNNURM) requires the mandatory reform of metered connections, so it is a wise investment for State Boards and ULBs. ***It is recommended that KUWSDB must devote adequate resources, financial and technical, to ensure that all ULBs achieve 100% metered connections within the next 2 years.***

2.28 Where metered connections are not possible, the tariff design which most closely approximates volumetric, metered billing should be implemented. Some practices currently being followed in different Indian cities for unmetered connections are - a) percentage of annual property tax (30% in Ahmedabad), b) determination of an average consumption of water according to the household floor area (Delhi), c) a monthly minimum charge according to the pipe size or ferrule (Hyderabad). Fixing the charge according to property tax does not encourage water conservation, and Ahmedabad has one of the lowest cost recovery percentages of 60 -65% (TERI, 2010). Therefore the other two methods are superior until 100% metering can be achieved.

User Charges in Irrigation

2.29 The importance of user charges in irrigation sector can hardly be overemphasized given the magnitude of capital investments made in irrigation projects and the size of their operations and maintenance costs. Obviously, the effective recovery of user charges has considerable impact on the finances of the State. Not surprisingly, the Thirteenth Finance Commission devoted a great deal of its attention to this issue; and, its observations with regard to irrigation sector have been mentioned in the beginning of this chapter.

2.30 The Commission dealt with this subject in an elaborate manner in the chapter on Water Resources Department in its Third report. The Commission emphasized the need to create system of ownership of irrigation assets amongst the water users for the completed projects. In addition to mandatory collection of user charges after a period of 2 years of release of water, the Commission recommended initiatives for enlarging scope of collecting water charges for power generation to cover all projects including micro/mini/small hydel power projects which have completed five years life and ULBs drawing water from irrigation sources for drinking water. The need for amending Government Order granting open-ended concession to micro/mini/small hydel power projects to introduce a sunset clause was also emphasized. In this section it is proposed to examine the underlying mechanisms that require intervention in order to improve the collection of water rates.

Water User Cooperative Societies

2.31 Water User Cooperative Societies are the means through which irrigations assets are sought to be maintained by devolving the ownership and responsibility on them to collect water charges and utilize the proceeds on maintenance of irrigation assets. In effect, the users (farmers) become partners in common endeavour of upkeep of irrigation facilities. In June 2000, the Karnataka Irrigation Act, 1965 was amended to allow the formation of Water User Co-operative Societies (WUCS) for Participatory Irrigation Management (PIM). WUCS were formed under the Command Area Development Authority (CADA) for major and medium irrigation projects. The geographical area of operation of the WUCS is ascertained and notified by the Irrigation Officer. While the CADA staff are responsible for organizing and motivating the farmers to form the WUCS, the Water and Land Management Institute (WALMI) provides necessary training for both CADA staff as well as WUCS. Typically, the area under a WUCS ranges from 500 ha to 1000 ha. WUCS are expected to raise ₹ 100/ha from all the farmers under the WUCS; once they raise this, they are entitled to receive a one-time grant of ₹ 900/ha (₹ 450/ha each from the Central Government and the State Government). Water is supplied to the WUCS in bulk for the purpose of irrigation. Water rate is levied on a volumetric basis of ₹ 12 per 1000 cubic metre. The WUCS collect water charges from the members of the Society and non-members who hold land within the jurisdiction. They are also empowered to levy charges to cover operations and maintenance costs for parts of the irrigation systems which have been handed over by the Government or Nigam to the Society, and also administrative and other related costs incurred by the Society. The Nigams /Zones raise and present the water demand for each WUCS based on the volumetric tariff mentioned earlier. The WUCS keep 20% of the seasonal volumetric water bill for their use and hand over the rest to the Nigams. Furthermore, the Government also allows them to retain up to ₹ 40/ha for maintenance of the canal network that has been handed over.

2.32 Slow Formation of WUCS: Currently, only about a little over 40% of the irrigated area under major and medium irrigation projects in Karnataka is reportedly managed by WUCS. Consequently the 3 Nigams - Krishna Bhagya Jala Nigam Ltd (KBJNL), Cauvery Neeravari Nigam Ltd. (CNNL) and Karnataka Neeravari Nigam Ltd (KNNL), and the Revenue Department (for non-Nigam projects) continue to manage a bulk of the work on levy and collection of water rates. Of the 15,86,524 ha of land irrigated under these projects, only 40.11% of this area is managed by 1405 functioning WUCS; there is need for 1656 WUCS to become functional in order to fully cover and manage the remaining irrigated area.[2] Formation of WUCS under the CADAs has not been completely successful. There have been instances of farmers being reluctant to organize themselves into WUCS. Such behaviour is mainly seen amongst farmers in the head-reach of the main canal because of assured quantities of water to them. On the other hand, farmers in the tail-end, who suffer from water shortage because head-reach farmers tend to grow water-intensive crops, are keener to form WUCS to try and resolve such hardships.

2.33 Insufficient area under each WUCS: It is also felt that the area under a WUCS (500 to 1000 Ha) is not sufficient to ensure economic viability of operations of the WUCS. As a result, the WUCS have been unable to meet their operating expenses and maintain their network properly. Up to 20% of the money generated by the WUCS is used for canal management purposes. KBJNL is supposed to provide a matching grant to the WUCS for the amount of funds they have collected, but that has not been put into practice. As WUCS are unable to meet the costs of O&M and repair works on their feeder networks from the funds that they have raised, the condition of these canals handed over to them has considerably deteriorated. As WUCS are important instruments in proper management of irrigation assets, the ***Commission recommends that the Water Resources Department should focus efforts to improve the formation of WUCS and help enhance their effectiveness through capacity building measures.***

[2] Note from the Water Resources Department regarding Water Users Co-operative Societies and Low Collection of Water Rates, submitted to the Expenditure Reforms Commission, Government of Karnataka in January 2010

Water Rates

2.34 The quantum of water charge is an equally important issue. A quick summary of the different kinds of rates that can be charged for irrigation water may be seen in the Box below.

Box 2.3 - Criteria of tariff fixation for irrigation water

Criteria for Tariff Fixation	Details
1. Area based	a. Fixed rate per hectare, where the charge is not related to the area irrigated, the crop grown, or the volume of water received. In this form, it is usually part of a two-part tariff – designed to cover the fixed costs of the service b. A fixed rate per hectare irrigated. The charge is not related to the type of crop grown, or actual volume of water received (except that a larger irrigated area implies a greater volume of irrigation water)
2. Crop based	A variable rate per irrigated hectare of crop i.e. different charges for different crops, where the charge is not related to the actual volume of water received, although the type of crop and the area irrigated serve as proxies for the volume of water received
3. Volumetric	a. A fixed rate per unit of water received, where the charge is directly related to, and proportional to the volume of water received b. A variable rate per unit of water received, where the service charge is directly related to the quantity of water received, but not proportionately (for example, a certain amount of water per hectare may be provided at a low unit cost, and additional water above this further quantity at a very high unit cost). This method is referred to as a rising block tariff.
4. Tradable water rights	Under tradable water rights, the entitlements of users in an irrigation project, or more widely, other users, are specified in accordance with the available water supply. Rights holders are allowed to buy or sell rights in accordance with specified rules designed primarily to protect the rights of third parties. sales

2.35 The Vaidyanathan Committee Report on the Pricing of Irrigation Water (GoI, 1992) suggested a two part tariff consisting of a flat annual fee on a per hectare basis that all farmers within the command area pay as membership fee to be part of the system, which entitles them to claim water, and a variable fee according to the water used (volumetric or area based). The annual flat fee the Committee recommended was ₹ 50/hectare. As for cost recovery, the Vaidyanathan Committee and the Tenth Finance Commission both suggest that water charges must cover at least the entire O&M costs of irrigation and 1 per cent of the capital cost to begin with. There is also the question of recommended O&M charges per hectare of land. The Twelfth Finance Commission recommended that in the major and medium irrigation sector, an O&M cost norm of ₹ 600 per ha for utilized potential and ₹ 300 per ha for unutilized potential may be considered based on normative expenditure requirements for maintenance of irrigation works. This norm for minor irrigation works should be half of those for major and medium irrigation projects.

2.36 In the minor irrigation Schemes of Karnataka, water charges are fixed based on the type of crops and the quantity of water required by the crop per hectare. The maximum rate is ₹ 988/ ha for an annual crop like sugarcane, and the minimum rate is ₹ 37/ha for a crop grown with manure (vide GO No. NEE YI-16-NPC- 99(P)). The Karnataka Irrigation (Levy of Water rates) Rules made by Government of Karnataka under Notification No. WRD16 NPC 99(P) dated 9th October 2002 provide for levy of water rates in full for the fourth and subsequent years after commencement of supply of water made available for irrigation. The rules also allow for levying of water rate at fifty percent in cases where water is drawn from an irrigation source belonging to the Government or Nigam for industrial use and returned unpolluted.

2.37 The water rates in Karnataka are, however, so low that even if 100 % of the demand raised is collected, not even 10% of the annual maintenance expenditure would be met (Please see Table below).

Table 2.6 - Minor Irrigation - Demand raised to Maintenance Expenditure 2006-09

Year	Total Area Irrigated (in Ha)	Demand Raised (in ₹ Lakh)	Expenditure incurred (in ₹ Lakh)	Percentage of demand raised to expenditure
2006-07	87967	388.38	5993.34	6.48
2007-08	98814	408.27	3794.96	10.76
2008-09	94771	372.34	4433.55	8.40
Total	l281552	1168.99	14221.85	

Source: Water Resources Department, Government of Karnataka

If the demand as a proportion of expenditure is low, what is worse is that collection of what is demanded is also low as can be seen from table below. It may not be the case that the farmers do not have the ability to pay; it seems the problem is that WUCS lack coercive power to make the members pay up the charges.

Table 2.7- Demand raised and collected under all Nigam and non-Nigam Projects 2001-07

Year	2001-02	2002-03*	2003-04	2004-05	2005-06	2006-07
Total Area Irrigated (in Ha)	1,353,254	867,829	487,488	2,039,413	1,318,107	1,115,639
Area in Ha	849,891	668,134	409,673	1,107,455	1,018,153	755,256
Amount (in ₹ Lakh)	1,965.74	1,026.45	3,971.41	1,895.14	1,597.97	1,529.99
Total Demand (in ₹ Lakh)	10,795.69	4,672.91	5,086.31	7,175.12	6,099.85	4,362.78
Total Collections	1211.86	1074.5	475.33	2056.39	978.45	724.73
Collections%	11.23	22.99	9.35	28.66	16.04	16.61

* Water rates for the year 2002 - 2003 is waived off due to drought situation as per G.O. No. WRD 83 MBI 2003, dated 8-9-2003

Source: Water Resources Department, Government of Karnataka

Although WUCS are empowered to stop supply of water in case of violation of cropping pattern and if users fail to make payment of water charges, there are practical problems as an individual defaulting farmer cannot be cut off from water supply as the entire lateral network of farmers will be affected.

2.38 As pointed out in our Third Report there is a need to improve the collection of water rates as also to revise them periodically as is being done by some other States like Maharashtra. A comparison of water rates for irrigation of a few States in India shows that the rates in Karnataka are lower than the water rates levied in Maharashtra and Andhra Pradesh. For instance, while the water user charge for the sugarcane crop in Maharashtra is as high as ₹ 6297 per hectare, in Karnataka, the water user charge for the sugarcane crop is ₹ 988 per hectare. [3] Similarly, where water is used from irrigation work, water rate levied for industrial use [4] is ₹ 3200 per million cubic feet (or ₹ 0.11 per Kilolitre). [5] In a recently revised order [6] dated 30th May 2011 issued by the Maharashtra Water Resources Regulatory Authority (MWRRA), the volumetric based rates for bulk water users for industries using water as raw material was as high as ₹ 48 per Kilolitre. [7] While the water tariffs charged by the BWSSB range from ₹ 6 per Kilolitre to ₹ 36 per kilolitre for Domestic filtered water (Section-35(i)), the water rates charged by BWSSB for providing water to Industries is maximum ₹ 60 per Kilolitre. For hydro-electric power generation units up to 50 MW capacity, payment of water rates is waived. KBJNL also has requests from Thermal power projects to allocate huge quantities of water from the dams and rivers under them. Not charging for and/or subsidizing water provided for other uses has led to significant revenue losses for the Nigams.

Water Regulatory Authority

2.39 The Thirteenth Finance Commission in its recommendations relating to release of water sector grants from Center has made it conditional to establishment of a Water Regulatory Authority in the State. While States like Andhra Pradesh and Maharashtra have constituted a Water Regulatory Authority, Karnataka is yet to constitute a State Water Regulatory Authority. ***The Commission reiterates its recommendation (already made in its Third report and above in connection with drinking water supply) that the State Government should expedite the constitution of a State Water***

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[3] Source : Pricing of water in public system in India, Information system organisation, water planning and projects wing, Central Water Commission, October 2010

[4] Water Resources Secretariat Notification No. WRD 16 NPC 99 (P) dated 9thOxctober 2002, where water is used from irrigation work for any purpose other than agriculture after obtaining necessary permission, If water is drawn from Canal, Tank reservoir, anicut and Bandhara, Pond, Kunta, Madagu Talaparige belonging to Government or Nigam for Industrial use.

[5] Water rate for Karnataka has been converted from Rupees per million cubic feet to Rupees per Kilolitres (1 cubic feet = 28.316847litres)

[6] File No. MWRRA/2011/BWT-Order/(59)/315, Review and revision of volumetric bulk water tariff rates for Industrial, domestic and agricultural irrigation users in State of Maharashtra

[7] Rates in season between 1st march to 30th June (except in Konkan and Vidharbha where it will be from 1st April to 30th June) water rates will be 150 percent of the basic rate i.e. ₹ 320 per 10 cubic metres for Regulated water supply with transmission loss; Water rate for Maharashtra is converted from Rupees per 10 cubic metres to Rupees per Kilolitre (1 cubic metres = 1000 litres)

Regulatory Authority which could function as a regulator for water use in the State and also review the optimum use of the sources and use of water in the State. Such authority should (a) fix and regulate the water tariff system and charges for surface and sub-surface water used for domestic, agriculture, industrial and other purposes; (b) determine and regulate the distribution of entitlement for various categories of uses as well as within each category of use; (c) periodically review and monitor the water sector costs and revenues.

2.40 For water rates to be fixed accurately water authorities viz. the Nigams and CADAs, ULBs and independent Boards should maintain accurate and credible database of costs to support the proposed water rates effectively. Systematic maintenance of asset registers, and a complete and accurate database relating to the assets, O & M cost, recovery rates, etc., can form the basis for fixing water rates and a reliable system to collect the same.

2.41 Reduction of implicit and explicit subsidies: Vaidyanathan Committee pointed out that all subsidies do not accrue to the end users of irrigation. The government must review and determine the amount of implicit subsidy attributable to costs of inefficiency in producing and distributing irrigation services on account of defective design, cost and time overruns in project implementation, overstaffing, high administrative costs, etc. Efforts should be made to reduce both this implicit subsidy and the explicit subsidy through the under-pricing of water by improving efficiencies, raising water rates and enforcing scheduled rates.

User Charges in Roads Sector

2.42 Road network plays important role in overall development of State. Karnataka, among southern States, is in first place in terms of road network/ population and second in its network length with reference to road length and total geographical network. It has 20,905 km of State Highways and 47,836 km Major District Roads. For proper maintenance, up gradation and for extension of this network, Public Works Department is responsible.

2.43 Transport sector accounts for a share of 6.4 per cent in India's Gross Domestic Product (GDP). The composition of various sub-sectors of the transport sector in terms of GDP is given in Table 2.8 below. It can be seen that the road transport has emerged as the dominant segment in India's transportation sector with a share of 4.5 per cent in India's GDP in comparison to railways that has a mere 1.2 per cent share of GDP in 2006-07 as per the revised data on National Accounts released by the Central Statistical Organization (CSO). It may be noted that the entire increase in percentage share of transport in GDP since 1999-2000 has come from road transport sector only, with share of other modes remaining nearly constant. Second, over the last seven years (1999-2000 to 2006-07) for which detailed revised data is available from the CSO, the average annual growth in road transport sector at around 9.4 per cent was much higher than the overall annual average GDP growth of 6.9 per cent. The growth rates across various modes have varied with road transport growing at a much higher rate compared to other competing modes in spite of significant barriers to inter-State road freight and passenger movement compared to other modes of transport which do not face rigorous en route checks/barriers.

Table 2.8 - Share of Different Modes of Transport in GDP

Sector	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
Transport of which:	5.8	6.0	5.9	6.2	6.3	6.6	6.5	6.4
Railways	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Road Transport	3.8	3.9	3.8	4.1	4.3	4.5	4.5	4.5
Water Transport	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Air Transport	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Services *	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5

* Services incidental to transport.
The share in GDP of Railways is exclusive of Financial Intermediation Services indirectly Measured (F.I.S.M.); for other modes it includes F.I.S.M. As percentage of GDP (at factor cost and constant prices)
Source: Central Statistical Organization

2.44 The economic growth, increasing disposable income, and increasing urbanization is creating greater demand for transport and the number of vehicles on India's road system is growing rapidly. India like many other counties in Asia has experienced high annual growth rate in excess of 10%. This is equivalent to doubling vehicle fleets in about seven years. The current private vehicle ownership level in India is still low in comparison to the industrialized countries. In these more motorized countries it has been found the shape of private vehicle ownership curve over time approximates an S curve. In the early years (at the tail of the curve), the vehicle ownership growth is slow and steady but this is followed by a period of rapid expansion or "explosive" growth (i.e. the steep part of the curve), before growth slows down again towards the top of the curve as it approaches theoretical saturation level (i.e. when it is assumed that all who want vehicles will have acquired them). At that stage, the rate of increase is expected to drop until it just keeps pace with the number of new drivers, since all existing demand will already have been met. It has been found in the more motorized countries that vehicle ownership growth rates do not begin to level out until ownership levels of about 500 vehicles per 1,000 populations or higher are achieved. Consequently, the experiences of the more motorized countries would suggest that, despite the rapid increases already being experienced in the developing regions, many countries are still at the bottom of the growth curve and have yet to enter the very steep "explosive" growth part of the vehicle ownership curve.

2.45 An efficient transport system is a pre- requisite for sustained economic development. It is not only the key infrastructural input for the growth process but also plays an important role of promoting the development of the backward regions and integrating them with the mainstream economy by opening them to trade and investment. In a liberalized set-up, an efficient transport network becomes all the more important in order to increase productivity and enhancing the competitive efficiency of the economy in the world market. Of the various modes of transport that connect the cities and villages of the country, road transport constitutes the crucial link. Road infrastructure facilitates movement of men and material, helps trade and commerce, links industry and agriculture to markets and opens up backward regions of India. In addition, the road system also provides 'last-mile connection' for other modes of transport such as railways, airports, ports and inland waterway transport and complements the efforts of these modes in meeting the needs of transportation.

2.46 As efficient road network has several positive externalities such as fuel economy, time saved in moving people and goods, promoting industrialization etc., they more than compensate for lack of significant rate of return. Further, there are many intangible benefits of road network. Network of village and district roads contribute to overall development and are necessary for providing connectivity; and thus they deserve being considered as pure public goods. However, part of this road network results in pure private benefits as well, such as reducing the cost of transporting raw materials/finished products by road. For this purpose, a distinction between road network that is falling in Pure Public Goods and Merit Goods can be made.

2.47 In India roads have been treated as public goods and they are largely financed from general revenue with little connection between the costs of road provision and the taxes or charges paid by road users. There is not much attempt at direct road pricing. India has a Central Road Fund created under the Central Road Fund Act 2000. Under the Act, additional cess (currently ₹ 2 per litre) is levied on petrol and diesel sale. The CRF is managed by the Ministry of Finance, Government of India. The allocations of the receipts are statutorily predetermined. Fifty percent of the cess on diesel is used for the development of rural roads and the remaining 50% of the cess on diesel and 100% of the cess on petrol are used as follows: 57.5% for the development and maintenance of National Highways, 12.5% for Railway Safety Works, 30% for the Development and Maintenance of State Highways and InterState Roads.

2.48 As mentioned above, to the extent that road networks generate positive externalities, expenditures on the network can be subsidized using general taxation measures. User charges also do not preclude general taxation measures required for redistributive justice in road networks, to maintain acceptable service levels in remote, less populated areas. Thus village roads, district major roads and a portion of the State highways can be treated as public goods and supported from the general revenues. In order to fix an economically efficient price for road user charges in other cases, economic analysis suggests that the following should be considered:

- a fixed amount to recover the administrative costs of motor vehicle registration and driver licensing systems;
- a variable amount corresponding to maintenance costs, amortized capital costs, and opportunity costs of underlying land;
- an additional variable amount related to negative externalities in the form of environmental and accident costs that are not internalized through insurance premiums; and
- a further variable amount reflecting congestion costs associated with travel on peak routes and at peak times, the revenues from which can be used to finance new or improved transportation infrastructure.

2.49 A multi-part tariff is generally identified as being the solution to declining marginal cost as output increases. Under the State Motor Vehicles Taxation Act, 1957, the Karnataka Government levies Vehicles and Service Tax, Road Tax on Lorries, Cess on Vehicle Tax, and Taxes and Cesses on the gross revenue from fares and freights of Public Service Vehicles owned by a fleet owner. The rates of taxes and cesses depend on the category of vehicle, weight of goods carried, number of passengers, floor area, etc. These charges are only poorly related to the external environmental costs (which depend on fuel type and engine type) and wholly unrelated to congestion costs which depend on type of vehicle, time of day, and location. ***The Commission recommends that while the government may undertake a review of road related taxes to bring them in line with various costs incurred for building and maintaining roads, it should immediately undertake a review of congestion pricing policies, existent in urban cities like London, Singapore and Hong Kong to draw up feasibility scenarios for replication / adoption for Bangalore city which is facing severe traffic congestion problems***.

2.50 The GoK has notified under the Karnataka State Highways Act, 1964 the rates of toll to be collected as toll or user fee for sections of State Highways or Major District Roads developed under PPP mode. Tolls as user fees are extremely essential to attract private concessionaires to PPP projects. In the roads sector especially there is significant need for private participation, to provide the viability gap funding.

Table 2.9 - Toll rates, Government of Karnataka, 2010

Types of vehicle	Basic Toll Rate effective from 28-01-2009 (₹ per km and per trip)	
	4 lanes and above	2 lanes
Car, Jeep, Van or Light Motor Vehicle	0.65	0.50
Light Commercial Vehicle, Light Goods Vehicle or Mini Bus	1.05	0.75
Bus or Truck	2.20	1.50
Heavy Construction Machinery (HCM) or Earth Moving Equipment (EME) or Multi Axle Vehicle (MAV) (3 to 6 axles)	3.45	2.25
Over-sized vehicles (seven or more axles)	4.20	3.00

Source: Public Works, Ports & inland Water Transport Secretariat Notification, No. PWD 18 EAP 2009 (P1), 26 May, 2009

2.51 The toll is to be collected by the private developer selected by the KRDCL. The rates at each toll plaza are specified by the Government on the basis of the above rates. The toll rates are revised every year on March 1st according to the Wholesale Price Index for the previous year ending 31st December. The toll policy applicable for the National Highways has a slightly different approach. The toll rate specified for the base year is increased without compounding by 3% each year; furthermore only 40% of the change in WPI is added onto this new base rate as neutralizing the movements of the WPI totally exposes the revenue realization to undue volatility. ***The GoK may also review their revision policy to keep a fixed increase in toll plus a variable component partially dependent on WPI movements. As per the PWD, at present only one-third of the road tax collected in the State is earmarked for the roads sector. It is recommended that at least 60% of tax and tolls should be routed back to the sector for development and maintenance of roads. Considering both tangible and intangible benefits arising out of the roads, the Commission suggests that road network consisting Village Roads and District Major Roads may be considered as pure public goods, and part of road network consisting State Highways, select District Roads may be considered as merit goods where partial recovery of costs could be considered and they be subjected to toll collection as per State Toll Policy. The Commission would also like to reiterate its recommendation made in the Third Report that a separate 'State Road Regulatory Authority' be constituted for, among other things, evolving and fixing road tariffs. There is a view that revenues and user charges from roads should be used for the expansion of public transport services as greater use of public transport reduces pressure on urban commuting. The Commission endorses this view and recommends that the government may consider subsidizing urban transport services from the road taxes, parking fees, congestion charges, etc., collected from vehicle users.***

Chapter 3 - Subsidies

Economic Rationale for Subsidies

3.1 The goods and services that the government provides fall broadly under three categories viz. public, merit and private. The public goods are those which fall in the sphere of State's sovereign functions such as internal security, public order, justice, public infrastructure and so on. These are generally financed from tax revenues. The merit goods and services are those which are desirable for all to have - e.g. primary health care, basic education, minimum nutrition, safe drinking water, etc. If a section of population is not a position to afford any of these, the State intervenes through subsidies to ensure that these are provided to them either free or at a low cost. The private goods and services are those which the government has no obligation to provide e.g. higher education, super speciality hospitals, expressways and so on; but it may do so for two reasons, a) where there are large positive externalities; for example, it may fund institutions of higher or technical education as they create highly skilled human resources which in turn promote economic progress of the State and the country; and b) where the initial requirement of capital is of such order that private firms do not find it viable as for example in construction of an expressway, which may also have many positive externalities meriting public investment. In case of above type of goods or services, the government may recover part of the cost from users through user charges. Subsidies, thus, are aimed at a) inducing higher consumption of a merit good (basic education, basic health care, etc.); b) offsetting market imperfections (e.g. funding of research and development) and c) redistribute income (provision of essential commodities at affordable prices to the poor).

Types of subsidies

3.2 A subsidy is not always direct and visible excepting when it is given as a cash transfer to producers or consumers. To illustrate, if government procures food grains at higher than market price (support price - a subsidy to producers) or if it sells them at lower than the price at which they have been procured (sale through fair price), subsidy is indirect. Subsidies can also be in kind (free health care in government hospitals) or take the shape of tax concessions. Grants-in-aid, low interest or interest-free loans, contribution to equity in PSUs without adequate return and so on can also be considered subsidies in a broader sense of the term. Subsidies and user charges are quite closely related in the sense that where government or its agency (a utility) fails to levy adequate user charge, the unrecovered cost becomes an implicit subsidy. User charges have been dealt with in Chapter 2 of this report. In this chapter, the subject of explicit subsidies and their implications for expenditure policies of the government are discussed.

3.3 Subsidy could be explicitly provided in the budget as a line item under detailed head 106 - Subsidy as for instance when a public sector unit (e.g. Road Transport Corporation or power utility) is asked to supply its services / output at below cost and the losses accrued are offset by budgetary subvention; or it might be off-budget as in the case of financial risks undertaken by government financial institutions as part of public policy. Subsidies may be given to producers to offset their losses / risks and to ensure adequate supply of that product (minimum support price for food grains and fertilizer subsidy) or to consumers to encourage consumption of a good (primary education and primary health care). In some cases, subsidies may be provided to producers of input used for production of a good where alternative inputs are available in order to encourage use of a particular input in preference to others. A case in point would be the green technologies promoted as public policy. Subsidies may be so designed as to distinguish between classes of consumers and charge some of them more than the cost so that the extra collection is passed on to the other class who are charged less than the cost.

Effects of Subsidies and Related Concerns

3.4 Economic effects of subsidies can be broadly grouped into a) allocative effects, b) redistributive efforts, c) fiscal effects and d) trade effects (Government Subsidies in India, Srivastava and Tapas Sen, 1997, NIPFP, Delhi). Subsidies help draw more resources to a sector in case of allocative effects. They may have the effect of redistributing resources between producers and consumers, between rich and poor and between urban and rural, the extent of which would depend upon the elasticity of demand of relevant groups for subsidized good as well as the elasticity of supply of that good. The effect of subsidies on government's budget is obvious as they form a substantial chunk of its expenditure. If they do not necessarily increase fiscal deficits, they can drain resources from other applications. A noteworthy problem with subsidies is their unintended or perverse effects. Subsidies may result in inefficient resource allocation; they may confer greater benefits to better-off people than the people for whom they are intended. They may result in wastage and sub-optimal utilization of scarce resources as in the case of free power and water. It is also possible that they cover inefficiencies in the provision of governmental services. Most of all, subsidies have a tendency to perpetuate and create vested interests.

3.5 The Thirteenth Finance Commission observed "While it is undoubtedly true that well directed subsidies can improve the access of target groups to merit goods, the extent to which this is true depends on what is subsidised and how. From the academic and policy literature on the subject and based on studies prepared for the Finance Commission, we are of the view that the impact of many central subsidies–including tax expenditures–is, on balance, regressive. Per capita subsidies flowing to the poorer States from the three major subsidies, viz. food, fertiliser and petroleum, were found to be far lower than the national average. .... Given that inclusive growth is the overriding objective of public policy, regressive untargeted subsidies that reduce fiscal space for key growth-promoting public investments and delivery of public goods to enhance inclusiveness are, today, a fiscal obstacle to the acceleration of India's development transformation."

3.6 Similar concerns as expressed by the Thirteenth Finance Commission obtain at the State level where the benefits appear to have accrued to better-off sections and better-off regions. There is no denying the fact that unchecked expansion of subsidies eat into fiscal space for other developmental initiatives and drag the State's economic progress back. When the subsidies do not reach the intended beneficiaries, the problem gets further compounded. In the next section we examine the subsidies at a macro level and move on to individual sectors in the subsequent sections. We have considered Power, Food, Agriculture, Industries and Housing under direct subsidies; and Education and Health under implicit subsidies. Another interesting aspect of subsidies which is neither disclosed in government documents nor subjected to serious discussion is the tax concessions provided under the industrial policy, what are known as tax expenditures. We have tried to examine this in the context of incentives for industries and made some recommendations.

Macro view of Subsidies

3.7 Measurement of subsidies is not an easy straight forward exercise as they take myriad forms and get concealed under different guises. Subsidy appears as subsidy in the budget of government only under one detailed head of account i.e. 106 - Subsidy. Other than this, subsidy could be in the form of grant-in-aid (detailed head 101), loan, equity contribution, etc. The government provides several merit goods where it does not recover its costs fully. The implicit subsidies can be a significant portion of government's expenditure. The implicit subsidies (S) are estimated (in those cases where non-rivalry and non-excludability is not applicable) by taking current cost (C1) plus annualized capital cost (C2) and reducing user charges, dividend, interest, etc.(R) received i.e. S = (C1+C2)-R. We have for the purpose of this report considered only subsidies as reported in the budget under detailed head 106 and as disclosed by the government in Overview of Budget.

Subsidies in Karnataka

3.8 The government provides direct subsidy in about seven sectors. The most significant among them are power and food subsidies. Agriculture and cooperation, particularly, interest subsidy to farmers is another important component of subsidies. Excepting 2007-08 when there was a sudden spurt in subsidies on account of interest waiver on farmers' loan, the direct subsidies have been steadily increasing.

Table 3.1 - Subsidy Payments 2005 to 2011

(₹ in crore)

Type of Subsidy	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11 RE	2011-12 BE
Food	729.79	749.66	649.91	726.17	1164.41	950.00	850.00
Transport	98.46	272.77	230.24	143.21	157.22	317.11	238.09
Power	1820.88	2369.71	2297.27	1942.76	2341.47	3693.13	4301.20
Industries	104.83	36.39	214.19	65.29	39.63	52.08	51.05
Housing	3.00	1.41	237.03	90.00	88.75	24.55	26.69
Cooperation	0	820.83	1792.66	187.10	124.71	315.88	276.81
Agriculture	0	0	114.89	140.46	96.43	97.97	292.48
Others	961.44	109.78	124.92	104.14	105.53	175.21	206.08
Total	3718.4	4360.55	5661.11	3399.13	4118.15	5625.93	6242.4
Percentage increase over previous year		17.27	29.83	-60.04	21.15	36.61	10.96

Source: Overview of Budget - 2011-12 and 2009-10

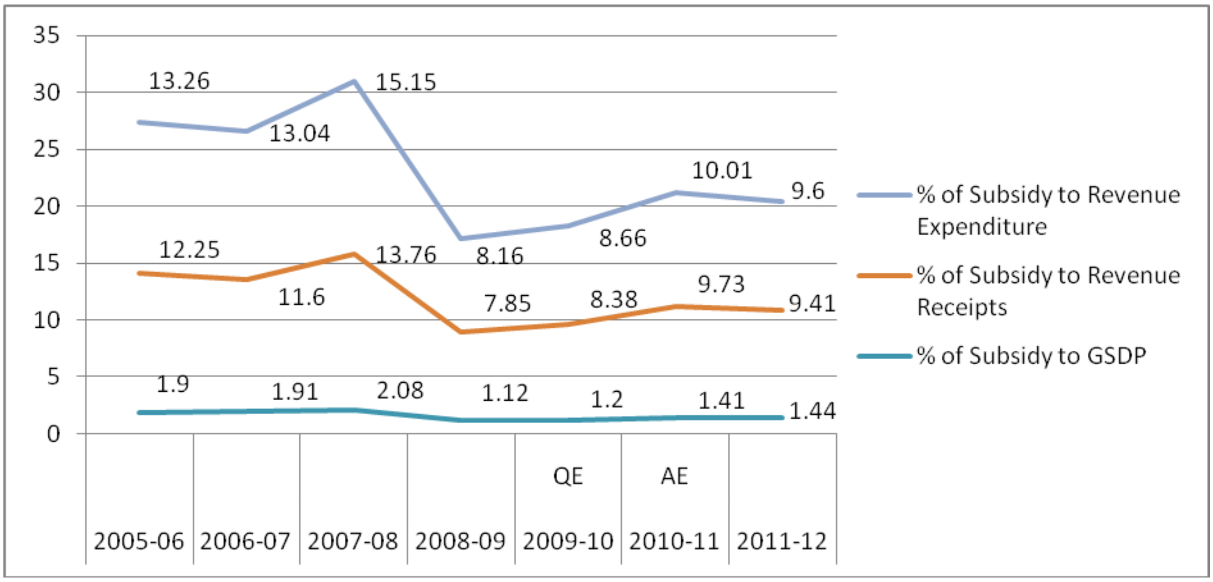
3.9 Subsidies as a proportion of GSDP had shown a declining trend till 2008-09 but have since started to increase. Similar trend is seen with reference to revenue receipts and revenue expenditure of the government.

Table 3.2 Subsidy as a proportion of GSDP, RR and RE

(₹ in crore)

	2005-06	2006-07	2007-08	2008-09	2009-10 QE	2010-11 AE	2011-12
GSDP at current prices (2004-05 base)	195772	227854	271246	302146	343010	397938	434270
Revenue Receipts (RR)	30352	37587	41150	43293	49156	57783	66313
Revenue Expenditure (RE)	28041	33435	37373	41662	47537	56190	65034
Total Subsidy	3718	4361	5661	3399	4118	5626	6242
% of Subsidy to GSDP	1.9	1.91	2.08	1.12	1.2	1.41	1.44
% of Subsidy to Revenue Receipts	12.25	11.60	13.76	7.85	8.38	9.73	9.41
% of Subsidy to Revenue Expenditure	13.26	13.04	15.15	8.16	8.66	10.01	9.60

Source MTFP 2011-15 (page 16) and Overview of Budget 2011-12



Power Subsidy

'Subsidy for the power sector is the largest component of State Government subsidies. Most of the State Power Utilities (SPUs) have negative financial flows. As SPUs are fully owned by State Governments, the financial performance of these entities has a direct bearing on State finances. State Governments' support to SPUs mainly consists of direct subsidies, subventions, contribution to equity, direct loans and extending guarantees to loans raised. According to a study sponsored by the Commission, the aggregate impact of the support to SPUs on State finances amounted to about ₹ 30,000 crore in 2007-08. Out of this, direct subsidy provided by State Governments amounted to about ₹ 18,000 crore. Guarantees extended on loans raised by the power sector constituted 36 per cent of the total guarantees extended by State Governments in 2007-08. The power sector in most States is beset with high technical and commercial losses, irrational power tariffs and inefficient distribution and transmission infrastructure, resulting in huge losses. Losses in the power sector are expected to be a major drag on the finances of State Governments, and therefore, the problems confronting this sector need to be addressed in a time-bound manner.'

Thirteenth Finance Commission

3.10 Power sector plays an instrumental role in the development of State's economy. Karnataka has experienced phenomenal growth in recent years, particularly in services and manufacturing sectors for which power is a critical input. The GSDP of the State has grown at 8.2 percent for the year 2010-11 (Economic Survey of Karnataka, 2010-11) which is at par with the growth at national level. The fact that the State of Karnataka is the third largest destination of FDI in India after Gujarat and Maharashtra bears the testimony to the growth potential of the State. These trends in the economy emphasize the role of power sector in supporting growth of the State not only in the present context but also in future. Apart from its critical role in industries and services sector, power also plays an important role in the agricultural development of the State and in ensuring livelihood for millions of people across socio-economic strata and across all regions of the State. The downside of inadequate or poor quality of power is equally substantial as a study on cost of unserved power (Cost of Unserved Power in Karnataka, Bose et al, India Energy Policy, Vol 34, 2006) estimated that the economic loss due to power outage in Karnataka varies from 1.9 percent to 3.6 percent of GSDP. The governance issues in power sector are important not only for the operational and distributional efficiency of the power sector and the fiscal burden of the State government but also for the overall growth of the economy and for the concerns of environmental sustainability.

3.11 There are two kinds of subsidies in the power sector i.e., direct subsidy and implicit subsidy. The direct subsidies are those that the government provides to the KPTCL towards meeting the expenditure-revenue gap and other losses. The implicit subsides are the government investments in the power sector for which the government does not get the required return. The chapter explores direct subsidy in the power sector in terms of the gap between the expenditure for power generation and transmission, and revenue from the sale of power. The direct subsidy has been worked out from the government budget documents. It comprises direct subsidy to KPTCL and payment of interest and repayment of loan from Rural Electrification Corporation and Power Finance Corporation taken over by the government. Table below gives the details of direct subsidy on power from 2008-09 to 2011-12 (BE). It can be seen that the amount of subsidy has been substantial.

Table 3.3- Subsidies on power sector

(₹ in lakh)

Head Account	Actual 2008-09	Actual 2009-10	RE 2010-11	BE 2011-12
2801-80-101 Assistance to Electricity Boards	194273.00	234104.80	369193.00	430000.00
4801-800-2-240 Debt servicing on REC/PFC loans taken over by GoK	8662.50	7537.10	5467.00	1665.00
Total Subsidy	202935.50	241641.90	374660.00	431665.00
Less: 0801-01-201-01 Royalties, etc., recovered from KPCL	7896.04	5606.50	7500.00	7987.50
Net Subsidy	195039.46	236035.40	367160.00	423677.50
		21.02	55.55	15.39

Sources of power and Institutional Arrangements

3.12 There have been substantial changes in the power sector in the State such as demand and supply situations, sources of generation, institutional mechanism for governance and so on. However, the government support to the power sector in terms of both direct and indirect subsidy still remains a major burden for the State exchequer. The source of power generation in Karnataka is a mix of thermal, hydel, solar and wind. Electricity generated in thermal power plants constitutes a major share in power generation in the State followed by hydel. The non-conventional renewable energy sources like solar and wind are expanding in recent years. A total of 26020 Million Units (MU) of power have been generated in the State during 2009-10 of which 13263 MUs have been generated in thermal sector (Table 3.4 below). Apart from these sources, the State also imports electricity from the central projects as well as from other States in the country. The recent study by ASSOCHAM on power availability across all the States in India found that Karnataka is a power deficit State with a power shortage of 465 MUs on an average (State of Power Situation in Indian States, www.assocham.org). There is a shortage of electricity in terms of availability as well as in meeting the peak load demand. Hence, there is an emphasis on enhancing the installed capacity for power generation in the State to match the increasing demand for power.

Table 3.4: Source-wise Generation of Power in Karnataka (in Million Units)

Sources	2005-06	2006-07	2007-08	2008-09	2009-10
Thermal	9165	11484	10876	11717	13263
Hydro, Diesel, Wind & Solar	10724	15151	14737	13363	12757
Total	19889	26635	25613	25080	26020

Source: KPCL (http://www.karnatakapower.com/technical.asp accessed on 08.12.2010)

3.13 As for the present institutional structure is concerned, Karnataka Power Corporation Ltd (KPCL) is vested with the function of generating power for the State whereas Karnataka Power Transmission Corporation (KPTCL) is vested with the responsibility of purchasing power from KPCL and all other sources and transmitting the power all over the State through the distribution companies. Earlier the KPTCL was also distributing the power to all categories of the consumers. However, as part of the reform in power sector, the government has formed four independent distribution companies in June 2002 and vested the responsibility of power distribution with these companies in their respective jurisdictions. Subsequently, Chamundeshwari Electricity Supply Corporation Limited (CESC) was carved out of MESCOM in April 2005 and is managing power distribution in five districts of the State. An independent regulatory commission has been established for ensuring competitive environment for private investments, regulating their operations and designing suitable tariff structure. Although reforms in the power sector also underscore reforms in tariff structure there has not been much progress in this regard.

Trends of power consumption, revenue receipts and costs

3.14 There has been a significant shift in the demand for power in the State over last two decades (please see Annexure 3.a). The number of connections has increased by 34 lakh in a five year period i.e. from 135 lakh in 2005-06 to 169 lakh in 2009-10. In terms of the number, Low Tension (LT) connections form a major share of the total connections. The High Tension (HT) commercial and industrial connections have almost doubled in these five years reflecting the increased commercial and industrial activities in the State and their demand for power. There is a significant rise in the number of connections in special subsidy groups under the government Schemes like Bhagyajyothi and Kutirjyothi. In terms of the number of connections, around 75 percent of the power consumers use power for domestic purposes for lighting and other household uses.

3.15 As the trend of consumption of power is concerned, it has increased from 24112.72 million units (MU) in 2005-06 to 33690.48 MU in 2009-10 (please see Annexure 3.b). According to KPTCL, the sales figure for Irrigation Pump (IP) sets is based on guesstimates as the power connection for IP sets are free and not metered. To illustrate, in case of HESCOM it was explained during the Commission's interaction with its officials in Dharwad that IP consumption is estimated based on sample of distribution transformers that are metered. Although special efforts are being made to account the free power used by the IP sets by metering the use, there has not been much of success in this regard. The domestic consumers including special subsidized consumers under Bhagyajyothi and Kutirjyothi Schemes accounts for over 75 percent of the connections but consumed only 21 percent of the total power sold during 2009-10. LT category consumers consume around 70 percent of the total power and the remaining is consumed by HT consumers. The irrigation pump sets (IPs with <10 HP) are the single largest consumers of the power, consuming around 35 percent of the total power. The share of industrial consumer in HT category is around 18 percent in total power consumption and is more or less constant for last few years. Many big industrial projects have their own captive power plants and are depending less on the State grid for power.

Table 3.5: Average Consumption of Power by Consumer Categories

Consumer Categories	Average Consumption of Power (in kWh)				
	2005-06	2006-07	2007-08	2008-09	2009-10*
BJ/KJ	184	196	179	179	177
Domestic and AEH	534	572	607	626	643
LT Commercial	1013	1098	1190	1241	1309
LT Industrial	6297	6146	6052	5504	5270
IP set	5880	7286	6269	6485	6369
Water Supply	8979	8323	9298	9526	8221
Street Lights	9056	8895	5917	5819	6812
LT Others	1701	1745	1876	1329	1106
LT - Total	1306	1476	1415	1421	1410
HT Water Supply	2813834	2863023	2657744	2485995	2518527

HT Industrial	1099601	1072484	1089232	1026178	968378
HT Commercial	438954	509398	552231	563803	536178
HT - Irrigation & Agri	176617	286774	374618	464032	498727
Private Residential Apts	428664	479586	451149	373313	453561
HT - Total	862754	874698	893105	863808	823561
Grand Total (LT+HT)	1785	2001	1983	2002	1989

*Provisional
Source: Estimated from KPTCL data

3.16 The consumption of power per connection for the commercial consumers in HT categories has also registered a significant increase from 438954 kWh in 2005-06 to 536178 kWh in 2009-10 (please see Table 3.5). Evidently there is a change in pattern of power consumption in terms of changes in the average power consumption by different consumers. There is a significant increase in the average consumption of power for domestic consumption from 534 kWh in 2005-06 to 643 kWh in 2009-10. The average consumption for the LT commercial consumers has also increased during this period. The average consumption of power is the lowest for consumers under Bhagyajyothi and Kutirjyothi Schemes. Average power consumption by IP sets has increased from 5880 kWh in 2005-06 to 6369 kWh in 2009-10 whereas for irrigation and agriculture in HT category it has increased from 176617 kWh to 498727 kWh during the same period. This is the most significant increase in average power consumption for any of the categories. The average consumption for all categories has increased from 1785 kWh in 2005-06 to 1989 kWh in 2009-10.

3.17 The total revenue earned by the KPTCL through tariff and miscellaneous receipts has increased from ₹ 7553.83 crore in 2005-06 to ₹ 11990.13 crore in 2009-10. The revenue from the LT category consumers and HT category consumers constitutes around 58 percent and 42 percent of the total revenue respectively (please see Annexure 3.c). Among the LT categories, domestic consumers contribute the largest share of revenue followed by the commercial and industrial consumers. The revenue towards free power for IP sets is the government subsidy. The share of commercial consumers in both LT and HT categories has increased marginally whereas the share of industrial consumers has declined. As pointed out earlier, this is due to the increased dependence of industrial consumers on captive power plants. Relating the revenue receipts with power consumption pattern reveals interesting results. The LT category of consumers, though consume 70 percent of the power, accounts only for around 58 percent of the total revenue. Within the LT categories, though the commercial and industrial consumers together consume around 10 percent of the power, they contribute around 16 percent of the total revenue. As the trends of revenue receipts are concerned, there has been a significant increase in revenue receipts in absolute terms as well as its proportion to the total revenue for special Schemes like Bhagyajyothi and Kutirjyothi. The earnings from domestic as well as industrial consumption have also increased significantly in absolute terms. The discussion on average realization rate throws more light on the issue of cross subsidization in the power sector.

3.18 The realization rate is the proportional volume of revenue receipts to the power consumption of the respective consumer categories. The overall Average Rate of Realization (ARR) for power sector has marginally increased from ₹ 3.03 per kWh in 2004-05 to ₹ 3.54 per kWh in 2009-10 (Please see Annexure 3.d). As it's evident from the table, the ARR for temporary power supply consumer categories are the highest followed by commercial consumers in both HT and LT category. The ARR for industrial consumers has also increased both for HT and LT categories and is above the overall ARR for power sector. Except the consumer categories of IP sets, HT irrigation and agricultural farms, domestic consumers under special Schemes like bhagyajyothi / kutirjyothi, the ARR for all other consumer categories are above the overall ARR. There is also a significant difference in ARR between HT and LT consumer categories with ARR for LT consumers and HT consumers being ₹ 2.91 and ₹ 5.06 respectively. This implies that there is cross-subsidization across the major categories

Table 3.6 : Expenditure for Power Production

Heads of Expenditure	Expenditure for Power Production (in ₹ Crores)					
	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10*
Purchase of Power	6242.05 (75.59)	6410.16 (69.37)	7730.58 (74.63)	8305.12 (73.18)	10576.87 (77.55)	10233.52 (72.52)
Repairs and Maintenance	99.24 (1.20)	106.61 (1.15)	123.71 (1.19)	131.38 (1.16)	128.42 (0.94)	174.99 (1.24)
Administration and General Expenses	153.03 (1.85)	187.99 (2.03)	211.72 (2.04)	228.70 (2.02)	234.29 (1.72)	239.96 (1.70)
Employee cost	817.89 (9.90)	1049.27 (11.36)	891.42 (8.61)	1150.69 (10.14)	1164.01 (8.53)	1351.85 (9.58)
Depreciation	480.97 (5.82)	505.53 (5.47)	469.65 (4.53)	298.73 (2.63)	388.45 (2.85)	707.99 (5.02)
Interest and Finance Charges	365.33 (4.42)	659.11 (7.13)	779.25 (7.52)	904.61 (7.97)	1050.23 (7.70)	1338.73 (9.49)
Other Debits	76.90 (0.93)	311.43 (3.37)	331.32 (3.20)	400.97 (3.53)	331.02 (2.43)	229.89 (1.63)
Prior period charges	39.45 (0.48)	56.92 (0.62)	-127.01	45.86 (0.40)	-82.35	-40.85
Sub total	8274.86	9287.02	10410.64	11466.06	13790.94	14236.08
Interest and Expenses Capitalized	17.00	46.97	52.05	116.79	152.08	125.01
Total Expenditure	8257.86	9240.05	10358.59	11349.27	13638.86	14111.1

*Provisional; Note: Figures in parenthesis are percentage
Source: KPTCL

3.19 The expenditure for power purchase has increased from ₹ 6242 crore in 2004-05 to ₹ 10233 crore in 2009-10 in absolute numbers whereas in terms of its percentage in total expenditure it varies marginally across the years. The expenditure for employees and depreciation cost is the second and third largest component respectively. The increased expenditure is contributed by increased cost of power production in general and higher transmission and distribution losses. The increased expenditure adds to the increasing subsidy burden on the government. Reduction in T&D losses and collection efficiency remain key concerns for the sector.

3.20 The unmetered supply component of power (primarily to agriculture) is increasing rapidly as discussed above. In the absence of measurement, these estimates of agricultural and rural power supplies tend to disguise the levels of T&D losses. Further, free supply encourages the users to be less responsible about the use of the resource. Large amounts of energy are wasted in agricultural pump sets on account of poor equipment efficiency. A Rural Electrification Corporation Ltd. sponsored pump rectification project in 1980s in 250-300 taluks in Bijapur and Bangalore districts showed that after rectification a) pump set efficiency improved by as much as 12 percentage points and b) the power factor improved from 0.6 to around 0.85 in 100 cases of the sample (International Energy Initiative, 2010). Further, another project viz. 'Karnataka - WENEXA (Water and Energy Nexus) pilot pump set project' in Doddaballapur sub-division in 2006-08 showed some interesting insights into power consumption in agriculture sector.

a. An energy audit of 10 percent sample of functioning pump sets showed that 91 percent of them operate with less than 30% efficiency.
b. A network survey to determine the voltage profile of feeder lines found them to be inadequate to support the quality of power needed for the operation of pump sets meeting BIS specifications. Due to frequent voltage fluctuations, pump motors generally needed to be repaired at least once a year.
c. After the pumps were replaced with more energy efficient and correctly sized pumps, the combined total power demand reduced from 71,782 watts to 51,559 watts. This combined with drip irrigation (as against flood irrigation) resulted in an overall 70 percent reduction in energy consumption and 60% reduction in water consumption.
d. However, six out of fifteen newly installed pump sets burnt out within nine-month period due to voltage fluctuations. It was clear that without simultaneous investment in network upgrades, this would not be viable.

A similar study conducted by International Energy Initiative (IEI) showed that frequent and costly repairs to pump sets due to poor quality of power made this facility beyond the reach of the poor despite the State subsidy on power.

3.21 It has been generally accepted that separating the feeder lines for pump sets and domestic use is key to efficient use of both power and water, which incidentally are highly subsidized. Even if power were to be supplied free of charge for IP sets below 10HP, it still makes sense to separate the feeder lines for the service provider as well as the user, who can then be assured not only of assured power supply (say four hours per day) of good quality power. The Commission learnt during its field visit that the feeder separation programme carried out by HESCOM in Belgaum District showed encouraging results. It was found that having separate feeders resulted in reducing power theft / loss by about 9 percentage points. Even the demand for power from agricultural pump sets also got reduced by 2 million units a month. As non-agricultural use was metered, there was also increase in revenue collection by about ₹ 16 lakh to ₹ 18 lakh. Taking into consideration all the savings and additional revenue collected, it is believed that the investment would be recovered in about 8 years. ***The Commission recommends that efforts be made towards feeder separation, introduction of High Voltage Distribution Systems (HVDS), metering of distribution transformers and control of supply as per policy. Distribution franchising and Electricity Services Company (ESCO)-based structures for efficiency improvement may be considered by the utilities.***

3.22 Very little energy audit is being done in distribution sector. Out of 17 lakh IP sets today, only 4 lakh are metered and there is no follow up of what is the consumption in these cases. Again, out of 4 lakh transformers only 1.5 lakh are metered. In the absence of energy audit it is not known how much power is being consumed, where it is being consumed, what is the share of individual sectors and what is the extent of unauthorized connections. The financial health of distribution companies is fragile and uncontrolled losses increase their dues to KPCL and the problems spread in an ever widening circle. ***The Commission recommends that in tandem with separation of feeder lines and associated reforms in distribution, the distribution companies should undertake extensive energy audit to identify potential risk factors.***

3.23 There is need to reduce dependence on spot power purchase by improving installed capacity. Besides, the States also need to initiate more competitive procurement processes. In spite of sustained deficits in supply, only a handful of States have completed Case-1 bid processes till date. This leaves them vulnerable to high-cost market purchases. There is urgent need to float more Case-1tenders since the prices tend to be much more competitive than those for short term procurement. The State also needs to initiate appropriate demand forecasting and portfolio optimisation exercises. ***The Commission accordingly recommends that the State a) focus on increasing generating capacity; b) choose longer term and competitive procurement process for purchasing power; and c) create a demand forecasting and portfolio optimization exercise.***

3.24 ***In addition, in the opinion of the Commission the following are required to be attended to:***

a. ***Promote consumer education to apprise them on the imperative for tariff increases; and***
b. ***Expedite linking tariffs to service levels, performance improvement and tariff reforms (including Multi-year Tariff implementation as required by the Act);***
c. ***Strengthen the institutional capacity and corporate governance of utilities. Public sector companies, whether or not they have raised funds from the market, should follow the provisions of the Company Law in finalising accounts, appointment of independent directors, appointment of audit committees, and implementing the Guidelines on Corporate Governance issued by the Department of Public Enterprises.***

Food Subsidy

3.25 Food subsidy is the difference between cost of procurement of food grains and the price at which it is supplied through Public Distribution Systems (PDS). The main objective of public distribution system is to provide food security particularly to the poorer section of the society by supplying essential commodities at subsidized rate. This is accomplished by targeting the population through Anthyodaya Anna Yojana (AAY), Below Poverty Line (BPL) and Above Poverty Line (APL) Schemes. The food subsidy has been on the increase and has reached a peak in 2009-10 with ₹ 1164.41 crore. Though food subsidy has marginally declined in 2010-11, but on the whole it has showed increasing trend.

Table 3.7 - Food Subsidy 2005-2012

₹ in crore

Head of Account	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11 RE	2011-12 BE
2408-01-102-01-106 Food- Food Subsidy	729.79	749.66	649.91	726.17	1164.41	950.00	850.00

3.26 While distribution of food grains at subsidized rate has positive effect on lives of poor and vulnerable sections like women and elderly, care should be taken for proper identification of beneficiaries and ensure that it reaches the needy. According to one estimate (‘How can food subsidies work better: Answers from India and Phillippines’ Jha and Ramaswamy, Economic Working Paper 221, Asian Development Bank, 2010) nationally the breakdown of the total costs of food subsidy is as follows:

Illegal diversion	43%
Excess costs	28%
Transfer to non-poor	19%
Transfer to Poor	10%

Excess costs refer to the purchase and distribution costs incurred by the government in excess of what private market channels would have cost. In other words, it relates to procurement, storage, transport and distribution costs. According to Planning Commission on average nationally as much as 57.9 percent of PDS grains intended for BPL suffers from diversion (36.4%) and leakage to APL (21.5%). In Karnataka, this is 70.9 percent made up of diversion (43.4%) and leakage to APL (27.5%) (Social Protection for Changing India, World bank)

3.27 In Karnataka, as on March 2009, about 1.6 crore ration cards were issued to different categories of consumers. Of this total, BPL (Below Poverty Line), APL (Above Poverty Line) and AAY (Anthyodaya Anna Yojana) cardholders accounted for 59.31 per cent, 33.18 per cent and 7.5 per cent respectively (Please see Annexure 3.e). As against 106.69 lakh families identified by Government of Karnataka as BPL through a survey, Government of India allotted food grains with reference to 31.29 lakh families identified by it as living below poverty line. Thus the State Government supplies food grains at BPL rates to these extra BPL (EBPL) families by diverting food grains meant for APL (procured at higher issue price) and incurring extra expenditure. Table 3.8 provides category-wise unit rates of subsidy. Among categories, State subsidy for rice and wheat distributed for EBPL families was much higher with ₹ 579/quintal and ₹ 353/quintal, respectively.

Table 3.8: Category wise Unit Rates of Food Subsidy

Particulars (₹ /Quintal)	AAY		BPL		(APL) EBPL	
	Rice	Wheat	Rice	Wheat	Rice	Wheat
Central Issue Price	300	200	565	415	830	610
State Subsidy	48	38	314	158	579	353
Wholesale Margin	19	15	20	20	20	20
Wholesale Issue Price	271	177	271	277	271	277
Retail Margin	29	23	29	23	29	23
Retail Issue Price (Per Qtl)	300	200	300	300	300	300
Retail Issue Price (Per Kg)	3	2	3	3	3	3

Source: Adapted from Economic Survey of Karnataka, 2009-10

3.28 Thus Karnataka's food subsidy suffers on two counts. One, there is large leakage which is common to all States; and two, there is an additional burden owing to issue of additional BPL cards. As for the leakages in PDS - the diversion to open market and inclusion errors - there are many alternative delivery mechanisms such as cash transfers, coupons, vouchers, etc., which are being debated by the academicians and policy makers. These are discussed and considered in the following chapter dealing with the Institutional Mechanisms for Public Service Delivery. If near universalization of PDS being recommended by some to be incorporated in the proposed Food Security Bill is accepted, this problem may be resolved to the extent of inclusion errors.

3.29 According to CAG's Audit Report, the government incurred additional ₹ 994.44 crore during the period 2004-09 for supplying food grains at BPL rates to extra (additional) BPL card holders by diverting rice procured at higher cost for APL cardholders. During the discussions with the officers of Food and Civil Supplies Department, it was informed that the process of identifying non-poor among BPL and duplicate (bogus) cards by cross referencing with electricity meter RR number in case of urban areas and with property tax register in case of rural areas was in progress. It was informed that there has been good deal of success in this regard. It was also reported that the computerization of ration cards using bio-metric identification which ran into difficulties being resumed with proper checks and balances. The system of collection of PDS food grains has also been reformed with the Fair Price Shop keepers directly collecting it from the Taluk storage points with better system of accountability. While the earlier estimates of BPL households was based on sample surveys, it has been reported in the media (ToI, 17 June 2011) that the first ever head count of the poor under Socio-Economic Census 2011 will be based on a set of 23 questions that aim to automatically exclude those above poverty line. At the same time, those belonging to primitive tribal groups, bonded labourers and manual scavengers would be automatically included in the BPL category. ***The Commission recommends that the efforts to streamline the identification of BPL through proper verification and computerization should be expedited.***

Subsidy to Agricultural Sector

3.30 Agriculture plays an important role in Karnataka's economy contributing about 18 per cent of Gross State Domestic Product and employing about 56 percent of the total workforce in 2007-08. Agricultural production is undertaken under varying agro-climatic conditions ranging from high rainfall to dry zones. A substantial portion of total cultivated area falls under semi-arid conditions which constraints adoption of productivity raising technology and investment. With only about 30 per cent of total cultivable area under irrigation, farmers continue to grow low input-low output crops such as coarse cereals in a significantly large area.

3.31 Government of Karnataka as well as Union Government have made extensive policy interventions in agricultural sector to increase agricultural production and support livelihoods of farming community. These interventions are varied and take several forms including market support programmes, output price support and subsidies on inputs like fertiliser, seed, credit, irrigation and electricity. Power subsidy has been discussed above while implicit subsidies in irrigation have been discussed in earlier chapter on User Charges. More specifically, some of the subsidy Schemes implemented during 2009-10 include crop loan at 3 per cent interest, loan waiver, distribution of seeds and fertilisers below market rates, promotion of organic farming, incentives to milk producers, cultivation of perennial fodders, fishermen group insurance, distribution of micro-nutrients, bio-fertilisers, farm implements and machinery and drip irrigation equipments. Besides, provision of direct subsidy to farmers, State Government also supports various agricultural parastatals (public sector enterprises) through grants and assistance.

3.32 It is seen that the subsidy burden in agricultural sector is increasing over time. There are about 34 Schemes through which direct subsidy is provided to agricultural and allied sectors. The direct budgetary subsidy recorded the highest amount in crop husbandry followed by animal husbandry. The pattern of subsidy has varied across the sectors. While direct subsidy and financial assistance were the major forms in crop husbandry, financial assistance and grants-in aid were the major sources in animal husbandry. Incentives provided to milk producers under assistance to dairy co-operative and other bodies and loan subsidy under crop insurance seem to have increased tremendously during recent years. Increased allocation under these Schemes has affected subsidy provisions of other Schemes. In the current fiscal, the Government has introduced a new Scheme called Suvarna Bhoomi under which about 3.72 lakh small and marginal farmers will be given a cash incentive of ₹ 10,000. As the total applications received are far in excess, almost six times, it has been decided to select beneficiaries by a lottery system.

Table 3.9: Budgetary Subsidy in Agriculture and Allied Sectors

Item	Subsidy (₹ Crore)			% Share		
	2008-09	2009-10	2010-11	2008-09	2009-10	2010-11
Crop Husbandry	366.80	380.90	601.90	29.70	28.70	36.50
Soil and Water Conservation	97.40	94.60	101.30	7.90	7.10	6.10
Animal Husbandry	266.70	284.30	352.40	21.60	21.40	21.40
Dairy Development	102.70	200.40	202.70	8.30	15.10	12.30
Fisheries	17.40	18.40	23.40	1.40	1.40	1.40
Forestry and Wild Life	52.80	54.50	57.40	4.30	4.10	3.50
Agricultural Research and Education	143.70	137.60	157.60	11.60	10.40	9.50
Co-operation	188.40	157.20	153.80	15.20	11.80	9.30
Total	1235.80	1327.90	1650.50	100.00	100.00	100.00

Source: Budget Document, 2010-11, Government of Karnataka

3.33 Interest subsidy constitutes a major component of total subsidy. In fact, assistance to credit cooperatives mainly meant for meeting interest subsidy for crop loan, interest subvention for loans given to Self Help Groups (SHGs), loan waiver and assistance to revitalization of ailing cooperative institutions. Table 3.10 shows particulars of interest subsidy on fertilisers and crop loans, loan waivers, etc.

Table 3.10 - Interest Subsidy (₹ in lakh)

Head of Account	Actual 2008-09	Actual 2009-10	RE 2010-11	BE 2011-12
2401-00-105-0-27-106 Interest subsidy on Fertilisers	-	-	1500.00	1000.00
2401-00-110-0-09-106 Crop Insurance - Subsidy for Crop Loans	-	4000.00	2500.00	4000.00
2425-00-107-2-41-106 Cooperation - Assistance to Credit Cooperatives - Interest subsidy	9109.35	9394.85	25300.00	25500.00
2425-00-107-2-43-106 Interest waiver on crop loans	-	-	-	1000.00
Total Subsidy	9109.35	13394.85	29300.00	31500.00

Distributional and Development Consequences of Subsidy

3.34 Although market support and subsidies play an important role in correcting market failure in the short term, their continuance may pose serious challenges in the long term. There is a need to see whether these support programmes and assistance intended to meet specific policy objectives are still relevant or have outlived their utility. Increased subsidy in agriculture sector has serious implications for environment not to mention the State's exchequer. It is also important to study distributional aspects of subsidies for resource poor marginal and small farmers. Direct subsidy in food, agriculture and allied sector has been estimated by aggregating four items of expenditure viz., subsidy, grants-in-aid, financial assistance and incentives.

3.35 According to Agricultural Census, Karnataka has about 12.4 million ha of cultivated area in 2005-06 up by 63,000 ha from 1990-91. Marginal and small holdings accounted for 27.4 per cent of total operated area in 1990-91 and have increased to 36.5 per cent in 2005-06. The total number of operational holdings increased from 5.8 million to 7.6 million between 1990-91 and 2005-06. As observed in the distribution of operated area, marginal and small holdings accounted for 74.8 per cent of total operational holdings in 2005-06 up from 66.7 per cent in 1990-91. In terms of absolute numbers, the medium and large holdings have declined drastically between the two censuses periods. Given the skewed distribution of holdings, distributional effects of subsidy across different farm size groups are likely to be different. Some studies have observed that benefits of subsidy largely reach to prosperous regions and large farmers (Impact of Agricultural Subsidies and Procurement, Sirohi, Indian Journal of Agricultural Economics, 39(4), 1984; Input Subsidies in Indian Agriculture – A State-wise Analysis, Gulati, EPW, 1989). Marginal and small farmers do not benefit due to lack of scale such as the subsidy on tractor and other machinery. The

Commission also observed during its field visits to Shimoga and Chamarajnagar that the subsidy benefits are generally being availed by better off farmers.

3.36 Ever increasing subsidy has generated debate on sustainability of agricultural production system. Indiscriminate use of inputs including fertilizers and irrigation water has resulted in deterioration of soil health, pest and diseases build up and mono cropping system. The agriculturally advanced regions are already witnessing fatigue in technology. Subsidy has also affected public investment in agriculture during eighties and nineties. The declining public investment and its resulting effect on productivity growth are widely documented.

3.37 The Commission discussed various subsidies in agriculture sector in passing in its Second Report. It had observed that impact of subsidies to milk producers for instance need to be examined with reference to the ultimate beneficiaries. Similarly, it had noted underutilization of crop loan subsidy and suggested that the Government's focus should be more towards Schemes that positively impact productivity such as research and extension services. ***After reviewing various subsidy Schemes in the agriculture sector, the Commission recommends that the government comprehensively evaluate various subsidies being offered in the agriculture sector to get an idea of their cost effectiveness and impact on relieving distress of farmers. The Government should also examine other options e.g. insurance to mitigate the risks faced by farmers.***

Subsidy to Industries

3.38 Subsidies in case of industries are more in the nature of incentives for industry to either locate in the State and/or within the State in particular regions that lack development. The incentives given are in view of large externalities that the industries bring in their wake - most importantly employment and the spin off benefits in services sector, real eState, and so on. The important kinds of incentives used are fiscal incentives (tax concessions), financial incentives (capital investment subsidy, interest subsidy) and market preferences.

3.39 Incentives and concessions to promote industrial development in Karnataka date back to 1968.The first package of incentives was announced for the period, 1968-74.Focus at that juncture was mainly on promoting new industrial investment in the State. These were largely in the nature of tax concessions, inclusive of sales tax, octroi, electricity tax etc.; there was no restriction of concessions based on the location and category of the new industrial units. However, the central government investment subsidy Scheme introduced in 1971 tried to promote industry in the backward districts all over the country. Thirty-seven backward taluks from three districts viz. Dharwad, Mysore, and Raichur were included under the central investment subsidy programme.

3.40 The second package of incentives for the period 1975-1982 aimed at dispersing the industrial growth, which was until then increasingly getting concentrated in Bangalore to different regions. Some form of restriction was introduced for availing the concessions by dividing the State in to three groups. Concessions offered to groups II and III were more in order to bring about regional dispersal of industry. The emphasis was more on the tax concessions than direct subsidies. The third package was in force for the period 1982-1988. Regional dispersal continued to be the underlying concern behind this package. The regional groups were restructured in to four Zones and the restrictions persisted with exceptions to some pioneering industries. Zone IV referred to industrially backward areas declared by the central government.

Incentives package for 2009-14

3.41 Introduction of economic reforms and the formulation of New Industrial Policy (NIP) resulted in a stiff interState competition to attract industrial investment. One of the strategies the State governments adapted was to announce very attractive fiscal incentives. The two packages announced for the periods 1990-95 and 1993-98 underwent many changes in between and were not implemented in total. The next package implemented in full was for the period 1996-2001. A comparison of previous policy packages clearly show sharp increase that has taken place in the scope and volume of concessions in the 1996-2001 package. The 2009-14 package has much lower ceiling than that given out during the decade of nineties. The policy also proposes to streamline the Scheme administration by linking package of subsidy to the performance of the unit achieved which is a welcome measure.

Table 3.11- Rates and Ceiling for Investment Promotion Subsidy under 2009-14 Industrial Policy Package

	Micro/Tiny Ind.		SSI		M&L Ind.*	
Zones	Rate (%)	Max. Ceiling ₹ Lakh	Rate (%)	Max Ceiling ₹ Lakh	Rate (%)	Max Ceiling ₹ Lakh
I	25	10	20	20	Nil	30
II	20	7.5	15	15	Nil	20
III	15	5	10	10	Nil	Nil
IV	Nil	Nil	Nil	Nil	Nil	Nil

* Those that employ minimum 25 workers

** Indicates Tiny and Small Scale Industries set up in developed areas in specified non- polluting high technology

Industrial Units shall be eligible for an investment subsidy of 25% of value of fixed assets, subject to a ceiling of ₹ 25 lakhs.

3.42 For the purpose of providing incentives, the State has been divided into four zones viz. I. Most Backward, II More Backward; III Backward and IV Industrially Developed. The rate and / or the amount of concession vary depending upon the zone - the highest being given for zone I and lowest for zone IV. Apart from general concessions available to all, specific concessions / incentives are available for export oriented enterprises, for enterprises set up in low HDI districts, micro, small and medium enterprises. The incentives and concessions offered for investment during the period 2009-14 (2009-14 package) are a mix of fiscal and financial incentives viz:

a. Exemption from stamp duty
b. Concessional registration charge
c. Waiver of conversion fine
d. Exemption from entry tax
e. Exemption from APMC cess / fees
f. Exemption from electricity duty
g. Reimbursement of costs incurred for technology upgradation, quality certification, patent registration
h. Interest free loan on VAT
i. Cash subsidy for first two manufacturing units with minimum employment of 100 members and minimum investment of ₹ 50 crore in each of the taluks falling under Zones 1 to 3 where no industrial enterprise with investment of ₹ 50 crore and above exists
j. Interest subsidy
k. Refund of ESI and EPF contributions
l. Incentives for following water and energy conservation and reservation policy

As most incentives are in the nature of tax concessions, only refund of sales tax due for eligible industries is budgeted (Table 3.12).

Table 3.12 - Industries Subsidy

₹ lakh

Head of Account	Actual 2008-09	Actual 2009-10	RE 2010-11	BE 2011-12
2852-80-800-1-43- Refund of Sales Tax to eligible industries	21.46	93.73	88.23	5000.00

Cost of the tax concessions and incentives

3.43 The current policy does away with sales tax concessions and replaces them with interest free loan equivalent to assessed amount of VAT to be paid over a period of time. This is a far more direct and transparent system where the interest free loan appears in the government's accounts as an expense. However, there are some major concerns. Firstly, the loan amount ranges from 50% to 100% of fixed assets of the unit. For example, if an industrial unit is set up with ₹ 1000 crore fixed assets, it is eligible for interest free loan of as much as ₹ 500 crore, subject however to that amount being equivalent to 25% of assessed gross VAT for initial 7 years. Secondly, while the loan is provided upfront, the loan amount is repaid in four instalments after considerable lag i.e. after seven to eight years. There are a good number of risks for the government in this starting with assessment of future VAT inflows and valuation of fixed assets based on which the loan amount is fixed. While one (VAT inflows) is subject to uncertainty, the other can be easily manipulated. Further, the government is not only foregoing interest on the loan but effectively receives only ₹ 48 being the net present value of every ₹ 100 given as loan with repayment starting after 7 years. The loan actually amounts to a partial grant. With substantial amount (as much as 50 percent) of fixed assets being provided by government as loan, the owner can keep his own stake (equity) very low, which can be easily recouped in a short period of time. Moreover, in case of default of loan, the government would have to fall back upon assets which are depreciated in economic and actual value. The risks would be correspondingly higher in large and mega projects. ***The Commission recommends that this incentive be allowed only for small and medium industries to which such an incentive makes a difference. Even if the Government wants to attract industry by giving some incentives, it should be some selected industry, for which Karnataka does not bestow any special advantage such as availability of raw material. In other words, such incentives should not be given to units in cement and steel industries; on the other hand, incentives may be justified for, say, automobiles. In any case loan amount should not exceed 25 percent of fixed costs, subject to conditions regarding VAT amount, employment generation, etc.***

3.44 While there are no recent studies providing estimated cost of fiscal incentives in terms of the revenue forgone, there are some estimates available. The White Paper on Karnataka State Finances States that revenue loss amounted to ₹ 332 crore due to exemptions and ₹ 136 crore due to deferment given to small and medium manufacturing units between the years 1992-93 and 1997-98. Commercial Tax Department's estimate of revenue loss to the government on account of concessions to medium and large-scale industrial units show a very sharp rise in the revenue loss on account of concessions from a insignificant sum of ₹ 1.79 lakh in 1991-92 to ₹ 5392 lakh in 2000-01. It is understandable that many developing countries have to resort to tax concessions due to lack of resource for direct subsidies. They try to promote industrial investment by sacrificing fiscal resources that would have otherwise accrued to the government. Nonetheless, there is a need to estimate the revenues foregone on account of all such concessions to understand the cost of promoting industry in the State. ***As the State government continues to rely on concessions as an instrument to promote industry, the Commission recommends that there should be serious effort to track the revenue loss arising on account of all such Schemes. The government should try to prepare a Statement of revenues foregone as done by the Union Government based on sample studies. It should be possible for the government to also devise ways by which some of the incentives are captured in the accounts of the government. For instance, concessional registration charge can be accounted as a receipt and the concession shown as expenditure.***

3.45 Current tracking of subsidy bill by the Government of Karnataka is limited to the budget head '106'. There are a number of other items, especially in the industrial sector that extend other forms of support for promotion of sales, purchase of raw material etc. ***The Commission recommends that the Government identify all such Schemes, however small they may be, and report the total subsidy bill of the Department concerned.***

3.46 Apart from the problem of estimating the tax expenditures (or the revenues foregone), there is dearth of empirical evidence as to how far these incentives and concessions have helped in stimulating investment, and whether the gains are commensurate the costs involved. Segregating the natural growth of industry and the growth induced by the incentives from the total industrial growth is difficult task. The problem gets further complicated when there are a variety of incentives which make it impossible to isolate the effect of each of the incentives. There is also the problem that as the number of incentives increase the redundancy is also likely to increase. It is likely that despite incentives and subsidies, the industries tend to locate in areas that offer other advantages. To illustrate, it was observed based on district wise sanction and pendency of capital investment subsidy to the small scale industries that as on 1999, Bangalore Urban district, which falls under Zone 1 and has eligibility only for certain non-polluting category and special category of industry, accounted for the largest share, 17.59 percent, in the total subsidy of the State. Five industrially advanced districts (Bangalore, Belgaum, Dakshina Kannada, Dharwad and Mysore) together accounted for 56.52 percent share in the total State subsidy. This scenario has not changed much as even as of 2008-09 the major share of capital investment subsidy to SSI and Tiny Units (52 percent) is reaching the units located in four districts- Kolar (17.17 percent) Bangalore Urban (14.16 percent) Rural (14.26 percent) and Tumkur (5.98 percent). This is also reflected in the considerable increase in the number of units and employment since 2001-06 in the five districts viz. Bangalore, Belgaum, D Kannada, Dharwad and Mysore (Annexure 3.f). Thus, it appears that there is little correlation between incentives and industrial development as the latter seems to follow infrastructure development rather than the other way round. Table 3.13 provides a corroboration of the above. The districts' rank of infrastructure development index and rank of industrial development (indicated by the value addition from the manufacturing sector) largely confirms the positive correlation between the two ranks.

Table 3.13 - Industry vs. Infrastructure Development in Karnataka

Districts	1976		1991		2005	
	IDI	Industrial	IDI	Industrial	IDI	Industrial
Bangalore	1	1	1	1	1	1
Belgaum	3	2	3	8	5	5
Bellary	8	8	12	12	10	9
Bidar	19	19	19	17	15	12
Bijapur	6	11	8	10	7	7
Chickmagalur	17	17	15	18	13	14
Chitradurga	7	7	6	13	3	2
Dharwad	4	14	5	6	8	8
Dakshina Kannada	2	4	2	4	2	4
Gulbarga	11	6	10	9	4	3
Hassan	16	15	14	16	17	13
Kodagu	18	18	18	19	18	15
Kolar	13	16	11	15	16	10
Mandya	12	12	16	11	14	8
Mysore	5	5	4	3	12	11
Raichur	15	13	17	14	11	6
Shimoga	9	3	7	5	6	10
Tumkur	10	10	13	7	9	3
Uttara Kannada	14	9	9	2	19	16

Source: Infrastructure Development Index (IDI).

3.47 Reflecting upon the huge fiscal burden and the distortions that occur in resource allocation, the Tax Reforms Commission strongly recommended that ‘the State government should discontinue all forms of incentives forthwith and, instead, strengthen infrastructure, stream line administration and create an investor-friendly climate to attract investments (First Report of Tax Reforms Commission, Government of Karnataka, 2001). ***The Commission is also of the view that the State Government should strengthen the infrastructure in the State - particularly power and road network, as ultimately it is the adequate availability of industrial infrastructure that plays a greater role in the industrial development of a region rather than the incentives and concessions.***

Housing

3.48 Housing is an essential and basic requirement for human survival and dignity. Housing development has been an important area of intervention by government in many countries. The issue of efficiency relates to externalities in housing consumption and equity relates to the redistribution objective of the government. Provision of subsidized housing helps the poor and downtrodden to enjoy better standard of living. An active participation by the governments in India, both at the central and State government levels have resulted in the formulation of a number of programmes for housing development. State governments have a greater role to play, as housing development is a State subject. Accordingly, there has been an increase in subsidies provided by the government in housing (please see table 3.14 below)

Table 3.14 - Housing Subsidy (₹ in lakh)

Head of Account	Actual 2008-09	Actual 2009-10	RE 2010-11	BE 2011-12
2216-02-101-0-07 Vajpayee Urban Housing Scheme	-	-	-	23500.00
2216-02-102 Housing for weaker sections	3034.00	2400.00	3500.00	4200.00
2216-03-102-0-07 House sites for landless	-	15779.00	6000.00	6655.76
2216-03-800-0-08 Ashraya	9000.00	14500.00	25608.00	23284.24
2216-03-800-0-09 Repayment of Ashraya Loan & payment of interest	-	-	11000.00	10065.00
2216-80-800-0-04 Indira Awaas Yojana - State's Share	-	-	6930.00	16283.00
Total Subsidy	12034.00	32679.00	53038.00	83988.00

Note: Housing Subsidy in Table 3.14 as per Budget Overview takes only allocation under detail head 106 - Subsidy whereas the figures in the above table are the outlays on various housing Schemes, which are treated as subsidy.

3.49 The State Schemes are in the nature of providing sites and houses to weaker sections both in rural and urban areas. They include:

a. Distribution of house sites for site-less persons both in urban and rural areas with annual income below ₹ 11800. The Scheme was introduced in 1992-93. Beneficiaries are eligible to get free of cost sites of the dimension of 30'X40' in rural areas and 20'X30' dimension in urban areas.

b. Rural Ashraya: This Scheme was launched in 1991-92 to provide construction assistance for economically weaker sections of rural society with an annual income limited to ₹ 11800. The Scheme involves a unit cost of ₹ 40,000 (initially started with ₹ 20,000) of which ₹ 20,000 is subsidy and ₹ 20,000 is loan recoverable in 180 monthly instalments for the beneficiaries belonging to the 'General' category while the SC/ST are eligible for 100 percent subsidy. Beneficiaries were selected by the

Ashraya committees headed by the local MLA till 2004-05 after which the selection is made by the Grama Sabhas.

c. Dr. Ambedkar rural housing Scheme is supported by the Social Welfare Department and meant for the members of scheduled castes and scheduled communities belonging to the rural areas with an annual income limited to ₹ 11800. The unit cost has been enhanced from ₹ 40,000 to ₹ 63,500 in 2010-11, of which ₹ 50, 000 is subsidy provided by the Social Welfare Department from its pool fund, ₹ 10, 000 is bank loan and ₹ 3,500 is the beneficiary contribution. Selection of beneficiaries is made in the Grama Sabhas.

d. Urban Ashraya Scheme: The urban poor with an annual income less than ₹ 11,800 are covered under this program. Unit cost of the Scheme is ₹ 30,000 of which ₹ 25,000 is loan from the government recoverable in 180 months and ₹ 5000 is beneficiary contribution. Beneficiary selection is made by Ashraya Committee headed by local MLA.

e. Construction of EWS houses to rehabilitate slum dwellers. Government of Karnataka bears 20 percent of the cost as grant while the remaining 80 percent amount is met by HUDCO as loan.

Centrally Sponsored Schemes: Indira Awaas Yojana

3.50 Housing for rural poor has also been introduced by the central government on more or less similar lines as the State-sponsored programmes. This originated in 1985 under the Rural Labour Employment Guarantee Programme (RLEGP). It became a part of the Jawahar Rozgar Yojana (JRY) in April 1989. Since, January 1996 this has become an independent programme. The beneficiaries under this category were originally SCs, STs, and bonded labourers and poor households below the poverty line. There has been an increased coverage since 1993-94 to non-SC/ST households with the condition that the funding for the non-SC/ST does not exceed 40 percent of the total allocation, with SC/ST coverage as 60 percent and 15 percent coverage for Minorities. The unit cost of the house under the Scheme was ₹ 14600 and enhanced to ₹ 20000 in the normal areas (1 August 1996) and ₹ 15000 enhanced to ₹ 22000 in difficult terrain. There has been a revision further from ₹ 35,000 to ₹ 45,000 from 2010-11.The central and State share the expenditure in the ratio of 75:25. State government in addition to its share is providing an additional subsidy of ₹ 5000 (to meet the differential unit cost). The Scheme was implemented by RDPR till 2004-05 after which Rajiv Gandhi Housing Corporation is overseeing the implementation. The houses were to compulsorily have a smokeless choola and a sanitary latrine. Beneficiaries are supposed to build the houses by themselves using the local materials and their own labour. Zilla Panchayats implement the Scheme, while the beneficiaries are selected by the Grama Sabhas. The Rural Development and Panchayat Raj Department implements these Schemes.

3.51 In addition to the Schemes discussed above, the government has announced three new Schemes in the budget for 2010-11.

a. Basava Vasathi Yojane: During 2010-11 the Government of Karnataka has introduced new Scheme called Basava Vasathi Yojane. Under this Scheme priority shall be given to hut-dwellers to make Karnataka a hut-less State. The unit assistance for this Scheme is ₹ 63500, of which ₹ 50000 is subsidy from government and ₹ 10000 is loan from banks and ₹ 3,500 is beneficiary contribution. (Government of Karnataka was implementing a Scheme earlier on aimed at replacement of thatched roof - 'Neralina Bhagya' to help beneficiaries to replace thatched roof. The Scheme involved a subsidy of ₹ 5000.The Scheme is implemented in Malnad and coastal districts of Karnataka).
b. Vajpayee Urban Housing Scheme (Replacement of Urban Ashraya): This Scheme is introduced to reduce the housing shortage in urban areas with substantial enhancement in the unit cost considering the current construction cost. Government is providing subsidy for urban Scheme and also the first time the Financial Institutions are participating in EWS housing providing a loan of ₹ 50000 per house under Interest Subsidy for Housing the Urban Poor (ISHUP) Scheme. The beneficiaries are selected by Ashraya Committees comprising both official and non-official members appointed by the Government. The unit cost per house is ₹ 1,30,000; in case of black cotton soil it will be ₹ 1,35,000 in which ₹ 50,000 subsidy from the government, ₹ 50000 as bank loan and ₹ 30000 would be beneficiary's contribution.
c. Nanna Mane (Affordable Housing for Low income groups): During 2010-11 the Government of Karnataka has introduced a new Scheme for above poverty line people to provide affordable houses to the low income group families (LIG) like auto drivers, film industry workers, unorganized sector workers, beedi workers, hamals, street vendors, etc. The annual income of the beneficiary is limited to ₹ 1.00 lakh per annum. During 2010-11 the Government intends to build 20,000 houses under G+2 concepts. The unit cost of the flat is ₹ 3.90 lakh, 4.25 lakh and 5.20 lakh.

3.52 The following Departments are participating in implementing these programmes:

a. Housing Department for State government sponsored Ashraya sites and housing Scheme. The Housing Department was separated from the Housing and Urban Development Department in 1995 to oversee the implementation of different housing programmes.
b. Department of Social Welfare for implementation of Dr. Ambedkar Housing programme for the Scheduled Caste Community.
c. Slum Clearance Board for Slum Housing.
d. The Karnataka Housing Board (KHB) implements housing programmes for the Low Income Group (LIG) Middle Income Group (MIG) and The High-Income Group

(HIG) and rental house. KHB was the nodal agency until the recent past, for implementing the government sponsored Schemes.

e. Rajiv Gandhi Rural Housing Corporation (RGRHC): Government of Karnataka of late has assigned greater priority to the housing sector and aims at enhancing the scale of EWS housing programme in the State. Government considered it necessary to establish a government owned company in January 2000 in order to implement all housing programmes more efficiently. RGRHC has the responsibility for both rural and urban EWS housing and currently even Indira Awaas Yojana.

3.53 Expenditure on housing incurred by Rajiv Gandhi Housing Corporation Ltd for the period 2000-01 to 2010-11 is presented in the following table (Table 3.15). The data reveals that the current decade has seen a marked change in the focus of the social housing Schemes. Rural Ashraya which has all along been getting the largest allocation has had a decline in its absolute size; expenditure incurred on the Scheme was ₹ 143.59 crore in 2000-01 reached its peak in 2007-08 with ₹ 617.15 crore and declined to ₹ 210.4 crore in 2010-11. Urban Ashraya and Rural Ambedkar Schemes too have had sharp decline in their absolute levels of spending. On the other hand, the expenditure on Indira Awaas Yojana has increased from ₹ 68.21 crore in 2004-05 to ₹ 437.9 crore in 2010-11 after reaching its peak in 2009-10 at ₹ 545.10. This being a centrally sponsored programme, the Central and State governments share the cost in the ratio of 80:20 (recently changed to 75:25) respectively. Hence, the State government also contributes to this subsidy. There has also been a substantial increase in the number of houses built under this Scheme. In terms of percentage share in the total, the former (State Schemes) has declined from 55.96 percent to 31.53 percent and the latter (IAY) has increased from 23.4 to 65.62 percent respectively during the corresponding reference periods. This is clearly shows that the State has substituted its own funding with that of central funding. While it is clearly to the advantage of the State government as it leaves more resources with it, the central Scheme guidelines and norms being framed by the central government, housing although a State subject gets increasingly centrally driven.

Table 3.15 - Public Expenditure incurred on Social Housing Schemes

Year	Social Housing Schemes in Rural and Urban Areas (₹ in crore)				
	Rural Ashraya	Rural Ambedkar	IAY	Urban Ashraya	Total
2000-01	143.59 (55.96)	35.24 (13.73)	27.78 (10.83)	77.75 (30.30)	256.58
2001-02	273.77 (65.41)	52.98 (12.66)	29.09 (7.00)	91.8 (21.93)	418.55
2002-03	230.53 (71.85)	36.83 (11.48)	28.91 (9.01)	53.5 (16.67)	320.86
2003-04	217.49 (75.46)	32.55 (11.29)	33.88 (11.76)	38.17 (13.24)	288.21
2004-05	174.76 (59.94)	18.11 (6.21)	68.21 (23.40)	30.46(10.45)	291.54
2005-06	156.01 (48.75)	13.01 (4.07)	128.35 (40.11)	22.64 (7.07)	320.01
2006-07	255.9 (63.51)	13.47 (3.34)	119.45 (29.65)	14.08 (3.49)	402.9
2007-08	617.15 83.04)	23.26 (3.13)	99.14 (13.34)	3.63 (0.49)	743.18
2008-09	558.69 (60.32)	36.34 (3.92)	325.46 (35.14)	5.79 (0.63)	926.28
2009-10	373.04 (38.71)	38.11 (3.95)	545.1 (56.56)	7.53 (0.78)	963.78
2010-11**	210.4 (31.53)	13.88 (2.08)	437.9 (65.62)	5.17 (0.77)	667.35
Total	3211.33 (57.35)	313.78 (5.60)	1723.61 (30.78)	350.52 (6.26)	5599.24

Source: Rajiv Gandhi Housing Corporation Ltd. 2011
Note: Figures in bracket are indicates percentage share in total.

Physical Progress under the social housing Schemes

3.54 Total number of houses built under various social housing Schemes during 2000-01 to 2010-11 were 21.82 lakh, (Annexure 3.g) with Rural Ashraya Scheme accounting for a major chunk of the total (60.64 percent) followed by the centrally sponsored Indira Awaas Yojana (26.52 percent). However, in the recent past the number of houses built under IAY has significantly increased as compared to the Rural Ashraya. More over the number of houses built under both Rural Ambedkar and Urban Ashraya has significantly declined over period. Site distribution has dwindled in importance during the study period with the exception of rural site distribution in 2009-10.

3.55 A study that was commissioned by the Rajiv Gandhi Housing Corporation with reference to the working of social housing Schemes in Karnataka in 12 districts makes the following observations (Mahadeva, 2010).

a. Social housing Schemes have impacted positively on the housing stock; the performance across districts however is quite varied.
b. Presence of ‘inclusion errors’ i.e. extension of benefits to non-poor to the tune of 23 percent among General Category; 22 percent among STs; 18 percent among OBCs and lastly 15 percent among SCs. Inclusion errors by Schemes reveal that Rural Ashraya has it close to 21 percent; IAY has 18.44 percent; Urban Ashraya has 14.29 percent and Rural Ambedkar Scheme has 9.84 percent.

c. The study also expresses concern over the poor performance in respect of site distribution.
d. The study does not report any misutilization of the Schemes by the beneficiaries as majority of them have been using the houses for self occupation, the Scheme administration seems to be suffering on account of corruption at the grass root level.

3.56 Rajiv Gandhi Housing Corporation has streamlined the housing intervention to a large extent. A number of duplicative Schemes existing prior to its establishment have all been dropped. A houseless survey was conducted in 2003-04 and hut dwellers survey in 2009-10. Some important initiatives include:

a. Hut dwellers Survey: The Company has conducted a survey of hut-dwellers in the State during 2009-10 to make the hut less State. As per the survey there are around 10.50 lakh hut-dwellers
b. Introduction of GPS (Global Positioning System): The Company has introduced GPS system during 2010-11 wherein payment will be made directly to a beneficiary account after GPS verification of a house at each stage to avoid the duplications, to ensure the actual progress at the field, etc.
c. Direct release of funds to a beneficiary account: From 2010-11 and onwards the Company is releasing the funds directly to the beneficiary account based on GPS verification to ensure more transparency in the implementation and also to ensure that the entire unit cost should reach to a end beneficiary.
d. Involvement of Financial Institutions in the implementation EWS housing Schemes: It is 1st time; the financial institutions are came forward to participate in Government Sponsored housing Schemes especially for EWS in massive scale.

3.57 As per the 1991 census, the housing shortage was at 426,915 for the rural areas and 245, 801 for the urban areas, the total shortage being 672,716. Task Force on Housing (2000) reported that housing shortage in Karnataka had come down in the decade of 1981-1991.While the number of houses built increased at 30 percent per annum, that of number of households increased at 26 percent per annum. Further, it is observed that houses constructed under government programmes accounted for 56 percent of the increase in the total increase in the number of rural houses. Government of Karnataka's survey conducted in 1995 places the houseless population in the State at 19.34 lakh of which site less persons numbered 11.52 lakh and houseless numbered 7.82 lakh. Further the survey conducted in 2003 by the Rajiv Gandhi Housing Corporation had put the houseless and site less population at 25.98 lakh. An analysis of the cumulative physical progress achieved from 2000-01 to Dec. 2010 under each of the government housing programmes shows that Karnataka government has distributed 169,446 sites of which rural sites numbered 113,815 and that of urban were 55,631 until December 2010, built 1,926,640 houses in the rural areas and 135,848 houses in the urban areas (Source: State Government's Economic Surveys for various years). Thus governmental investment on housing has helped in improving the housing status of the poor in the State.

3.58 While the achievement under Rural Ashraya program has not crossed 50 percent of the target, Indira Awaas Yojana has exceeded the targets in many other districts. Dr Ambedkar Scheme too has performed well in terms of achievement of targets. The implementation of these Schemes with a focus on individual targets and achievements for each Scheme is distorting the overall prioritization and planning. Consequently in two districts- Uttara Kannada and Yadgir houses were constructed over and above the houseless population as per the 2003-04 survey. This is yet another instance of poor administration of the Schemes largely caused by parallel operation of multiple Schemes. District level targets need to be linked to the houseless population.

3.59 It is observed that despite substantial outlay on social housing Schemes and good physical progress in construction of houses over the years, the number of houseless and siteless families seem to be never diminishing. Framing of accurate timelines to meet the houseless/siteless demand is not a difficult task as the information pertaining to housing demand (as assessed by surveys from time to time) annual expenditure allocation and the unit costs are available with the Department. ***In view of the above, the Commission recommends that the government should on priority make a systematic forecast of housing needs and funds needed to meet them. Once these are in place, it should be possible to a) target the subsidy to districts there is a need and b) gradually decrease the quantum of subsidy in this sector.***

3.60 The data reveals that the current decade has seen a marked change in the focus of the social housing Schemes. Rural Ashraya which has all along been getting the largest allocation has had a decline in its absolute size with the Indira Awaas Yojana replacing its position. Correspondingly, there has also been a substantial increase in the number of houses built under IAY. This is clearly a case of ‘fungibility’ where in many State governments have been substituting State funding with that of central funding in order to completely utilize funds available from the Central government. It is clearly to the advantage of the State government, as it leaves more resources with them which can be used for State’s priorities. In the present context although the ‘Urban Ashraya’ and ‘House Sites’ Schemes are slated as important policy intervention by the government they are currently starving for funds. ***In view of the substantial funding for rural housing Schemes by the Central government, the Commission suggests that the State government could consider increasing the support to these two urban housing Schemes viz. Urban Ashraya and House Sites to meet the unmet urban housing needs in the State.***

Education

3.61 There are 58,889 primary schools and 12,453 secondary schools in Karnataka as of 2010-11. A majority of primary schools are funded and managed by the government (78%), while a few receive financial assistance (4%); and roughly another 18% are entirely in the private sector. In case of secondary schools, their proportions are - government - 34 %, aided - 24% and private - 42 %.

3.62 As for higher education institutions, there are 1198 colleges, of which 349 (29%) are government-run, 308 (26%) are aided colleges and 541 (45%) are private colleges (Source: Performance Budget 2008-09). As of 2009-10, there were 273 polytechnics and 174 engineering colleges. In case of government-run and aided higher / technical education institutions, their entire salary expenditure is met by the government by a grant.

3.63 One might take the view that elementary education involving the imparting of 3Rs may be considered a public good, while secondary and higher / technical education may be viewed as a merit good. The government should accordingly provide elementary education completely free of cost to all and subsidize secondary higher / technical education for those who cannot afford to pay the required fee. Considering large positive externalities in case of higher and technical education, some support to institutions in this domain could be justified. However, as can be seen from table 3.16 below the receipts from secondary education and higher/technical education are barely of the order of 1.5 % and 3.5 % of corresponding expenditure (2008-09 and 2009-10)

Table 3.16 - Expenditure and Receipts on Education (₹ in lakh)

Head of Account	Actual 2008-09	Actual 2009-10	RE 2010-11	BE 2011-12
2202-00-01 Elementary Education	472405.59	448837.15	538160.59	592052.44
2202-22-02 Secondary Education	256098.39	267822.39	321434.29	359704.75
2202-00-03 University and Higher Education	69638.68	75221.93	145798.09	143982.40
2203-00 Technical Education	14556.70	17564.85	26028.42	39360.14
Total Expenditure	812699.36	809446.32	1031421.39	1135099.73
Receipts				
0202-01-102 Secondary Education	3696.59	4843.08	5985.00	6980.00
0202-02 Technical Education	3232.64	3379.27	5126.00	5623.00
Total Receipts	6929.23	8222.35	11111.00	12603.00

3.64 ***Considering the large gap in recovering the cost of providing secondary and higher / technical education, it is felt that there is scope for levying higher tuition fees from students from APL households.***

Health

3.65 As with education, it is possible to differentiate health care expenditure depending upon the users. Firstly, primary healthcare in rural areas i.e. sub centres, primary health centres, community health centres and district hospitals can be treated as pure public goods. Tertiary healthcare and to an extent secondary health care may be considered a merit good and charged depending upon the capacity of the user to pay. As for medical education, it should be treated on par with higher/technical education and considered a merit good.

3.66 It is, however, seen that receipts from urban health services covering tertiary health care and medical education are not even one percent of total expenditure incurred by government on them.

Table 3.17 - Receipts and Expenditure on Health and Medical Education (₹ in lakh)

Head of Account	Actual 2008-09	Actual 2009-10	RE 2010-11	BE 2011-12
2210-01-110 Health - Urban Health Services - Hospitals and Dispensaries	28042.97	27310.82	29689.18	34237.26
2210-10-05 Medical Education & Training	33947.06	38952.30	50814.12	68791.57
	61990.03	66263.12	80503.30	103028.83
0210-01-020 Receipts from Patients for hospital & dispensary services	44.50	25.21	27.50	37.50
0210-03-101-01 Tuition and other fees - Ayurveda	99.69	30.87	25.00	50.00
0210-03-102-01 Tuition and other fees - Homoeopathy	16.40	6.34	12.50	17.50
0210-03-103-01 Tuition and other fees - Unani	21.19	.91	12.50	15.00
0210-03-105-01 Tuition and other fees - Allopathy	148.26	140.26	112.50	150.00
	330.04	203.59	190.00	270.00

3.67 ***The Commission is of the view that there is no economic rationale to subsidize tertiary medical care for people who can afford to pay for such services or underwrite expenditure on medical education when a person pursuing medical education can generally be expected to come from a reasonably well-to-do background. This does not preclude the government from providing subsidy to persons from economically weaker sections of society. Therefore, the Commission***

reiterates its recommendation already made in its Second Report (para 17.26) that the government should collect user charges from APL patients for healthcare services in tertiary hospitals, while continuing to provide subsidized treatment to the BPL households. Similarly, tuition fees for medical education should be suitably enhanced while providing relief to students from economically weaker sections.

Chapter 4 -

Institutional Mechanisms for Program Implementation and Service Delivery

> Give me six hours to chop down a tree and I will spend the
> first four sharpening the axe.
>
> Abraham Lincoln

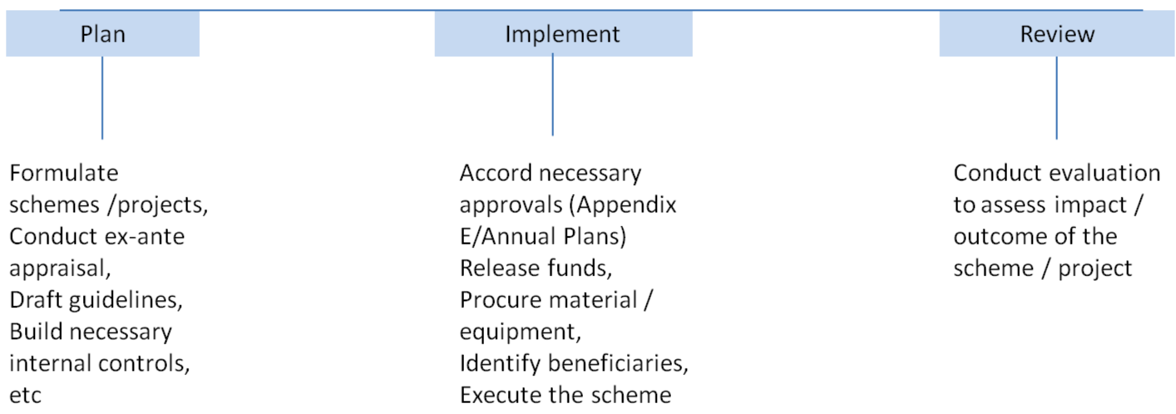
4.1 Institutions are the 'axe'. They are the 'rules of the game', consisting of both the formal legal rules and the informal social norms that govern individual behaviour and structure social interactions (institutional frameworks)' (Douglas North). If program implementation and service delivery have to improve, the institutions and the institutional mechanisms have to be 'sharpened'. As they say, 'don't fix the pipes; fix the institutions that fix the pipes', because fixing the institutions delivers more enduring results. In this Chapter, it is proposed to examine the institutions and institutional mechanisms involved in program implementation and service delivery and suggest some measures to improve them.

a. Institutional Mechanisms for Program Implementation

4.2 Government of Karnataka implements more than a thousand Plan and Non-Plan Schemes every year. The total plan and non-plan expenditure in 2009-10 (Actual) was of the order of ₹ 24,337 crore and ₹ 36,318 crore respectively. The Government has budgeted to spend ₹ 36,644 crore and ₹ 46,212 crore towards plan and non-plan expenditure in the current year (2011-12) - an increase of 51 percent and 27 percent respectively over two years. In order that the government derives value for the money spent on various Schemes and programs, they must be effective, efficient and economical. It is the institutional capacity and mechanisms that determine how far the government is able to accomplish this.

4.3 Typically, a Scheme (in this chapter Scheme, program and project are used interchangeably) requires firstly to be formulated in terms of its broad contours i.e. issues it would address or the objectives it would fulfil; what it would involve in terms of men and material; what these would cost; whether the cost is commensurate with expected benefits; and what are the processes by which the implementation would take place. Once a Scheme is thus 'planned', it is included in the budget and necessary appropriation made for its implementation. In the implementation stage, the necessary funds would have to be made available to the implementing level offices; materials, if any, need to be procured following the procurement law of the State; and so on. Finally, some review has to take place to see whether the Scheme has achieved its objectives. Thus, the sum total of processes, procedures and systems involved in planning, implementing and delivering the final output would make up the institutional mechanisms. Some of the critical systems that impact the efficient implementation of Schemes are further examined below.

Figure 4.1



Role of Planning Department

4.4 The Department of Planning, Programme Monitoring and Statistics plays a major role in the first stage of Scheme / programme implementation. It has the following attached / subordinate offices and divisions under it:

i. State Planning Board;
ii. Statutory Boards, viz.
   a. Hyderabad Karnataka Area Development Board (HKDB);
   b. Malnad Area Development Board (MADB);
   c. Bayalu Seeme Development Board (BSDB);
   d. Karavali Development Authority.
iii. Planning Department has following functional divisions (detailed functions and key responsibilities of the divisions are given in Annexure 4.a):
   a. Project Formulation Division;
   b. Manpower and Employment Division;
   c. Perspective Planning Division;
   d. Plan Monitoring and Information Division;
   e. District Planning Division;
   f. Plan Finance and Resources Division;
   g. Evaluation Division;
   h. Human Development Division;
iv. The Directorate of Economics and Statistics.

4.5 The State Planning Board functions as an independent body to advise the Government on planning and policy matters. It consists of the Chief Minister as the Chairman, Deputy Chairman, official members and non-official members. The official members include the Ministers in charge of Planning and Finance, Chief Secretary, Additional Chief Secretary, Development Commissioner, Principal Secretaries of Finance and Planning Departments. The Area Development Boards look after the overall development of the respective areas with thrust on infrastructure viz. roads, bridges, water supply etc. All legislators and MPs whose constituencies lie within the jurisdiction of the Board are its members in addition to presidents of ZPs of the districts. The State Government appoints one of the members to be the Chairman of the Board.

4.6 There is a High Power Committee constituted in the year 2008 to oversee the implementation of the recommendations made by Dr. D M Nanjundappa. A Special cell has been created in the Planning Department to look after all matters of Special Development Plan (SDP) and to assist the High Power Committee. The Deputy Secretary of the special cell is also the member secretary of the High Power Committee. The Planning Department administers the Members of Parliament Local Area Development Scheme (MPLADS) and the Karnataka Legislators Local Area Development Scheme (KLLADS). In addition, the Planning Department sponsor studies on various aspects of development by eminent research institutions, universities etc. The Planning Department also publishes an Annual Economic Survey of the State and prepares and finalizes Annual Plan proposals of the State and Districts in the State.

4.7 The Directorate of Economics and Statistics (DES) is one of the major technical Departments of the State responsible for providing statistics required for the macro & micro levels of planning and to enable the State government formulate policies and programs under various sectors of the economy. DES is responsible for developing an 'Integrated Statistical System' in the State and has a vital role to play in the decentralized system of planning and decision making process.

4.8 While the approach paper of the Twelfth Five Year Plan (2012-2017) is evolving, the Planning Commission has already identified the following twelve key challenges for the Twelfth plan period. [8]

- Better Preventive and Curative Health Care
- Improved Access to Quality Education
- Managing Urbanization
- Rural Transformation and Sustained Growth of Agriculture
- Accelerated Development of Transport Infrastructure

[8] Twelve Strategy Challenges for the Twelfth Five year plan : http://12thplan.gov.in/displayforum_list.php accessed 25th June 2011.

- Securing the Energy Future for India
- Technology and Innovation
- Decentralisation, Empowerment and Information
- Markets for Efficiency and Inclusion
- Managing the Environment
- Enhancing Skills and Faster Generation of Employment
- Enhancing the Capacity for Growth

4.9 Some of these challenges, for instance, technology and innovation, securing energy future, enhancing capacity for growth, enabling efficient markets, are non conventional in the context of planning process so far. The State Planning Department needs to reorient itself by building systemic and HR capacity to help the line Departments in handling the new challenges in preparation for the Twelfth Five Year Plan and its effective implementation. The Planning Department itself has brought out a vision 2020 document with certain priorities. Unless the State Government institutions are geared up and institutional capacity is enhanced, the vision document runs the risk of remaining a well intended wish list. Therefore, this is the right time, at the beginning of the twelfth five-year plan itself, to redefine the Planning Department's role keeping in view emerging challenge of durably delivering development and welfare. The redesigned role of Planning Department should be robust enough to translate the forward looking vision of the Government through capacity building for programme formulation across the line Departments, with long-term perspective in planning and implementation. If this is not done, the Planning Department is likely to run the risk of remaining a centralized macro-economic documentation facility for various line Departments and a liaison office between Central Planning commission and the line Departments in the State.

4.10 The government has been planning and implementing a large number of Schemes year after year. What has been their outcome? How many of them have been effective in addressing the problems they set out to address? What were the factors that were responsible for those that succeeded and those that did not? There are new and advanced methodologies such as the randomised control trials advocated by Dr. Abhijit Vinayak Banerjee of Massachusetts Institute of Technology for isolating factors that contribute to success or failure of an intervention. What are the systemic problems in effective implementation? Are there any issues with the basic project design itself? Who is looking at this in the government? The C&AG's performance audit of Schemes does provide clues to some of these posers.

4.11 The emerging challenges before the government are different from the challenges the government faced before economic reforms were introduced in the country. While most of the macro economic reforms originate from the policies of the union government, the corresponding micro and meso economic reforms require careful assessment with foresight including risk assessment/contingent liabilities of government activities. ***The Planning Department at the State level is in a better position to provide strategic leadership, set priorities and also suggest systemic changes in the line Departments. For instance, studying the linkages between State budgets and sector specific implications on GSDP; challenges in identifying activities which have potential for PPPs, putting in place appropriate evaluation standards, improving statistical systems, and challenges in technology and innovation, securing energy future, enhancing capacity for growth, enabling efficient markets. Accordingly, the Planning Department should be reorganised and system capacity be built up to address the emerging challenges.***

Planning, Personnel and e-Governance Departments

4.12 Adequate and competent human resources have a significant bearing on effective implementation of Schemes as also the public service delivery. Many Departments are handicapped by vacancies in critical cadres while there are surpluses in other cadres. There are many issues such as grievances relating to seniority, promotions, etc., that entangle the government in vexatious litigation. In many Departments, these issues occupy senior officers' attention more than the larger goals of their Departments. The Department of Personnel and Administrative Reforms (AR) should play a larger role in smoothening out these impediments. Similarly, information technology and communications can play a vital role in creating government wide database on Schemes and projects with built in measures for undertaking dip-stick studies. We find that there is a commonality and convergence of purpose in the three Departments viz. Planning, Personnel and Administrative Reforms and e-Governance. ***The Commission is of the view that the Principal Secretaries of these three Departments should be brought under an Additional Chief Secretary for coordinating government's efforts to derive maximum value for its interventions and investments.***

Empowered Committees

4.13 A general bottleneck in Scheme implementation is the red tape involved in the process of sanctions and approvals. Not only are there several levels up to the Cabinet in some cases involved but also many times there are also several agencies engaged in this process. Delays in according approvals have a telling impact on Scheme implementation, particularly considering the fact that the government Departments work with financial year as a time frame. Delays lead to telescoping activities so as to fit them into the one year frame with obvious consequences of rushed activities, poor quality control and so on.

4.14 The government of Karnataka has constituted empowered committees to provide fast track clearances to on-going and new plan Schemes and externally aided projects. The Empowered Committee under the chairmanship of Additional CS and Development Commissioner can sanction on-going Schemes which require modification and / or have additional components as also new plan Schemes. The Finance, Planning and Personnel Departments are represented on the EC. This mechanism considerably reduces time which otherwise would have taken for sanctioning of a Scheme.

4.15 Similarly, the Government has issued (April 1999) guidelines for constituting empowered committees for implementation of Externally Aided Projects. However, before an EAP is formally proposed, the concerned administrative Department should obtain clearance from the State Level Coordination Committee at two stages i.e. a) in-principle clearance and b) later when the detailed project report is prepared and before sending the proposal to the Cabinet for approval. The proposal to constitute an Empowered Committee (EC) headed by an officer not below the rank of Additional Chief Secretary should be submitted to the Cabinet at the time of seeking the approval for the EAP. The EC, which has representatives from Finance, Planning and Personnel Departments, has full powers for a) creating posts to be filled up by redeployment or on contract and b) procuring vehicles, equipment, furniture and other supplies, consultancies services and civil works as required by the project. Once in six months a Statement of decisions taken by the ECs (on matters which would ordinarily have required Cabinet approval) are required to be placed before the Cabinet highlighting all matters where the EC has overruled or disagreed with the opinion of Finance Department. The empowered committee system saves considerable time which would otherwise be taken in the paper file doing rounds of different Departments. ***The Commission recommends that empowered committee system should be adopted where ever taking a decision entails inter-Departmental consultations in order that time taken for according approvals is minimized.***

Funds Flow

4.16 The cash flow management is a complicated issue with asymmetry between the respective pace of receipts and expenditure. This is further complicated by poor communication between different agencies involved in the process. Thus, availability of funds to the implementing agencies at the right time and in right proportion remains one of the major constraints in program implementation. Although, the Finance Department has eased the process considerably by delegating the authority to line Departments to release funds at least in the first and second quarters, there still are a few bottlenecks in funds flow. This is partly due to the mechanism of approvals in the treasury system where the approvals have to be transmitted from the State Treasury Department to sub-treasury. Often, while the Government order releasing the funds is received by the implementing office, the corresponding order allocating funds in the treasury is not available. It is sometimes the other way round, too. There are also instances when, particularly, the last two quarters releases are received rather late resulting in either rushed expenditure or under spending. During the discussions on the subject as also later in writing the Director of Treasuries has attributed the time lags to manual processes involved in transmitting the allocations by the line Department and the FD. This will be addressed in the updated version of treasury software i.e. Khazane II which will be a browser-based software offering facility for online uploading of data.

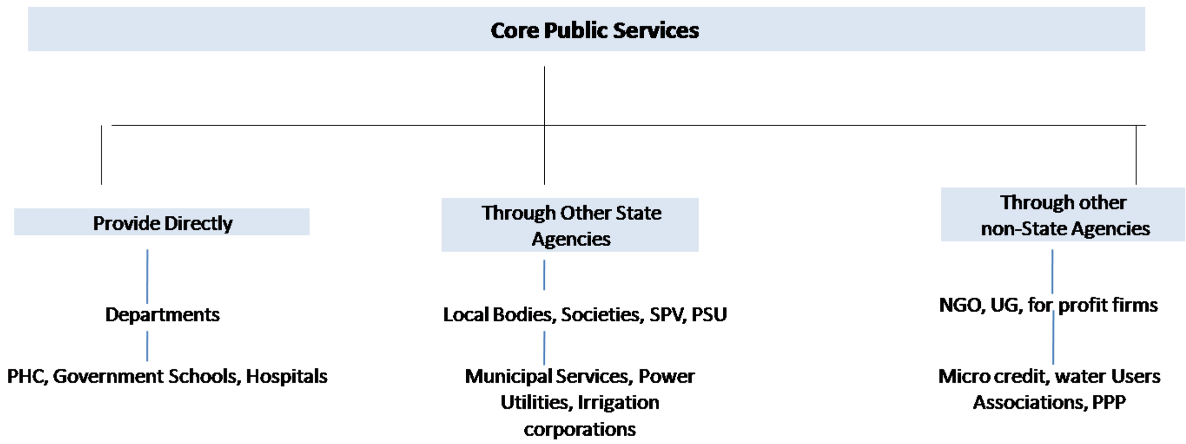
4.17 Of late there is a noticeable tendency to bypass the Treasury system to speed up the funds flow to implementing agencies by routing the funds through banking system. Most of the flagship programs of the central government have adopted this method by creating societies to which funds are transferred through the banking channel. Working outside Treasury control provides these societies a lot of flexibility in their operations. While advantages of speed and flexibility are obvious, there are many risks as well. Firstly, the expenditure of these entities does not get captured in the budget and as a corollary they escape the legislative oversight. The expenditure of these organizations being outside the government accounts, the standard of their classification and compilation may not be of the required rigour. It may become difficult in future to get reliable data relating to the programs implemented by these organizations. As discussed below in para. 4.23, these special purpose implementing agencies also often have weak governance structures. Considering the above, the Government should exercise due care in creating such special purpose organizations and routing funds directly to them.

4.18 There are major problems in Schemes involving transfer of resources to certain section of society entailing identification of beneficiaries. This issue together with alternative mechanisms for reaching the benefit to the targeted groups / individuals is discussed in the next section.

b. Institutional Mechanisms for Public Service Delivery

4.19 As discussed in the earlier part the government implements Schemes either by itself directly or through SPVs and local bodies. When it comes to delivery of public services, it could additionally involve non-State players such as the non-governmental organizations, citizens / users groups, public-private partnership firms and even for profit firms depending upon the nature of service and its requirements.

Figure 4.2



4.20 Effective delivery of public services is of utmost importance as they mostly cater to underprivileged and disadvantaged sections of society who have no other recourse. As has been borne out by the experiences in education and health, lack of adequate provision by government has lead to private sector filling in the gap. The public spending on health in India is amongst the lowest at roughly 25% of total expenditure. It is lower compared to even countries like the USA which are more market oriented. In this section, we propose to look at the institutional mechanisms involved in public service delivery including alternative methods of reaching benefits to targeted population.

Special Purpose Vehicles for Scheme implementation and service delivery

4.21 As shown in figure 4.2 above, public services may be delivered directly by the government Department itself or through one of its agencies including local bodies. There has been an increasing trend of government programs being implemented through Special Purpose Vehicles (SPV) such as statutory corporations, public sector companies, societies and PPPs. They are legally separate bodies governed by the relevant statute (in case of statutory bodies), Companies Act (in case of public sector companies) or the memorandum of association, articles of association and by-laws in case of societies formed under the Registration of Societies Act.

4.22 SPVs provide flexibility in exploring and utilizing funding options from market as also managerial and operational freedom. One of the prime advantages in SPVs is that the fund flows to them are fast as they operate outside the treasury control. For the same reason, their day to day operations are also quick once they have funds. They are similar to next step or executive agencies that have been introduced in the UK (in late 1980s under Prime Minister Margaret Thatcher), New Zealand, Australia and some other countries to improve delivery of public service. The important elements common to executive agencies as followed in these countries are:

a. Defined responsibilities and clear aims and objectives set out in a published framework;

b. Day to day responsibility of running of the agency left to the Chief Executive (CE) who is personally answerable for the job to be done for which he has complete managerial authority (both administrative and financial). The CE is designated as chief financial officer under the Public Finance Act in New Zealand;
c. Chief executive is recruited on the basis of open competition and appointed for a fixed term;
d. CE is free to hire personnel and pay them market determined salaries;
e. Key performance targets covering quality of service, financial performance and efficiency set by the Ministry. A formal performance agreement is signed between the Departmental minister and the CE every year detailing services to be provided by the agency in New Zealand, where the system provides for bonuses for good performance and removal for poor performance; and
f. Performance reported and reviewed by independent bodies.

4.23 The system of executive agencies has been very successful in these countries. As far as the Indian experience is concerned, these agencies have suffered from the same shortcomings as the Departments. The key differences between the manner in which SPVs in India function and their counterparts (i.e. executive agencies) function are:

- There is no explicit and formal understanding of the objectives of SPVs and there are no performance benchmarks. Some of them might be facing conflicting objectives of providing infrastructure with no ability to recover the costs (e.g. the SPVs in irrigation and power sectors); even if there is clarity about the social objectives that they are required to fulfil, there are no financial benchmarks to judge their performance after factoring the costs of providing such socially relevant objectives.
- Oversight of these bodies requires arms length between the principal (the Department) and the agent (the SPV), which is not the case as the Chairperson of many Nigams (for e.g. KBJNL, CNNL, etc.) is the Chief Minister or another senior minister of the cabinet. Other members of the Board also are either ministers or officials of the Ministry. The Chief Executive i.e. the Managing Director in many cases is career civil servant i.e. the Departmental Secretary or Director who holds the office on deputation. Under the circumstances there is really no operational and managerial freedom for executives. Moreover, the lines of accountability also get blurred as the burden of decision making is not left entirely to the management. Thus, the governing structure in case of parastatal organizations in the State is at variance with the normal practice adopted in Government of India. In the central PSUs and statutory corporations, the Chairman of Board of Directors is a professional manager. Any coordination with other Departments required in matters related to PSUs is achieved through the system of Committee of Secretaries or Group of Ministers and in very important cases by the Cabinet Committees.

- The HR systems are particularly rigid. In most cases (particularly in case of societies) the personnel would belong to the State government governed by the State civil services rules. There is a lot of emphasis on process control rather than holding the CE accountable for output.
- If the autonomy is not there, neither is the accountability. The governance structures are generally poor. Often their accounts are not regularly prepared and subjected to audit.
- Once created, a SPV tends to linger on even if the original purpose for which it was set up is not relevant anymore.

4.24 For the reasons cited above, there is, firstly, need for exercising caution while creating special purpose vehicles for Scheme implementation or service delivery. ***The government should carry out a comprehensive zero-base review of all parastatal organizations to see how many of them are still relevant in terms of the original objective with which they were set up; how many of them have their accounts audited up to date; what is their financial status; and so on. The government should wind up those whose continued existence cannot be justified on grounds of relevance in present day context or if the objectives of that SPV are being met by another.***

4.25 Secondly, ***the government should adopt explicit criteria for choosing to create a SPV. If the SPVs in the State have to function as executive agencies, they must be provided financial and operational autonomy while ensuring that there are sufficient measures guaranteeing accountability, transparency, oversight, etc. In order that the SPVs function independently and professionally and they can be held accountable for their performance, they government should maintain arm's length from them by strictly entrusting their management to an independent and competent Board of Directors.***

Public Private Partnerships

4.26 Public Private Partnership (PPP) is another vehicle or mechanism through which a public service may be delivered. PPPs have been the predominant mode in infrastructure projects mainly in roads, ports, urban transport, etc. PPPs have been credited with a lot of success in providing single-window interface with several government agencies. Be it Bangalore One or e-Seva (in A.P.), they have facilitated the citizens' interaction with multiple government agencies. Among their many benefits were: a) the reduction of rent seeking by the government officials, b) convenience of time (being open outside office hours) and location and c) mode of payment.

Role of local bodies

4.27 Karnataka has been at the forefront of decentralization even before the 73rd and 74th Amendments to the Constitution came into force. As much as one-third of its receipts are devolved to local bodies. A large number of Schemes are implemented at the district level. However decentralised governance, which the 73rd and 74th Amendments mandate, is more than devolution of funds for Schemes to PRIs. It is about their having remit over the designated functions, ability to raise own resources (funds) and control over the functionaries to carry out those functions.

4.28 The local bodies, particularly at zilla panchayat and taluk panchayat levels, feel severely constrained by a) having no voice in deciding the Schemes and no freedom to alter them to suit their needs; b) not having any powers for re-appropriating funds from one Scheme to another; and c) lack of control over the functionaries who remain employees of the State government and report to their superiors in the State government for all practical purposes. As far as grama panchayats are concerned, there do receive some untied grants. In effect, the local bodies are reduced to being the extended arms of the State government.

4.29 The need and relevance of State sector Schemes arises because a) there are certain interventions that are needed uniformly across all the districts; b) there are certain projects whose implementation cuts across the borders of many districts e.g. roads and irrigation projects. Funds for implementing Schemes under a) above could be provided to the local bodies for implementation, whereas those under b) would have to be necessarily in the State sector agencies. ***Barring such Schemes /projects, it would greatly help if the funds provided to local bodies are completely untied where the local body could take a view on how much to spend on what Scheme. It would give them much more ownership and involvement in implementation with positive outcome. It may, of course, be necessary to provide some checks and balances, for instance a cap on how much can be spent on salaries. Even better from control viewpoint would be if the local bodies can actually prepare plans based on local needs which then can be vetted by the State government and necessary funds provided for them in the budget. This way the planning becomes bottom-up and local bodies can be held accountable.***

Alternative Mechanisms for reaching benefits to the targeted groups / individuals

4.30 In this last section, we shall examine the issues involved in reaching benefits to the poor and disadvantaged particularly in respect of provisioning of food, education and health.

4.31 Identification of beneficiaries has been a major problem is delivering services to targeted groups such as the poor. The identification processes suffer from inclusion and exclusion errors; a few unintended, some systemic and many deliberate. There is no agreed number of poor in the country. While Planning Commission puts the number at 6.52 crore families or 326 m living below poverty line, the Tendulkar Committee established the head count ratio at 37.2 percent or 450 m. The issue of ration cards puts the figure of poor at 554 m and the Arjun Sengupta Committee categorized 836 m or 77 percent of the population in 2004-05 as poor and vulnerable

4.32 Apart from identifying the needy, the major problem has been to reach the benefits to the poor without any leakages on the way. To get around this problem, different mechanisms including a system of self selection, unconditional cash transfers, conditional cash transfers, food stamps, vouchers, etc., are being seriously debated. It is proposed to discuss these in the context of public distribution system of essential commodities. Earlier chapter on Subsidies had discussed the issue of subsidies from the stand point of efficiency and necessity. Here, we shall look at the subsidies (considered necessary such as food) from the delivery point of view.

4.33 Self selection, if feasible, is ideal. It avoids transaction costs of identification, verification and accounting for the same. It has been suggested by some that restricting the subsidy to varieties of food grains (millets, coarser varieties of rice, etc.) which are predominantly consumed by the poor would lead to self selecting as the non-poor would stay out of seeking such subsidized goods. Similarly, free cooked food (as in the mid-day meal Schemes where other poor can also participate) would be by and large self selecting. We find that the problem is as much about inclusion errors resulting in the deserving not receiving the benefit as the deliberating siphoning off supplies by diversion and wrong accounting. The Public Distribution System (PDS) has been plagued by leakages where supplies intended for poor are diverted to open markets. Cash transfers and food stamps / vouchers have been suggested by many as an alternative so that at least the leakages due to corruption may be avoided. It appears that the problems of corruption and identification of the beneficiaries would still remain whether cash is being transferred or food coupons / vouchers are being distributed.

Cash Transfers

4.34 Under cash transfers the government, instead of supplying food grains and other essential commodities (LPG, Kerosene) at subsidized price to the identified poor, would transfer equivalent cash to the poor for them to buy these goods from open market. This would with a single stroke do away with all the infrastructure and transaction costs involved in procuring and transporting the goods and overseeing their distribution to intended beneficiaries. The money could be transferred to the beneficiaries bank accounts or they can be provided with smart cards which can (like ATM cards) be used by them to make purchases. This together with identification afforded by UID number would be a fairly fool-proof system. Or is it? Here are some concerns raised:

- Cash transfers do not take into account inflation and even if they do, they may not ensure full neutralization. Once the system switches over to cash transfers, the poor are expected to buy the commodities that were hitherto available in Fair Price Shops (FPS) in the open market. There is no guarantee that they can buy the same quantities with cash transferred to them unless prices are stable.
- Cash being liquid, it presents two problems. It is far easier to pilfer as it presents few problems in storing, transporting and selling. Two, food is shared more equitably in the household; there is no guarantee that the money received will be spent on purchase of food grains and not on some whimsical purchases by the head of household.
- PDS network has much wider network than the banking system.
- Problems of identifying (to whom and how much cash) will remain with attendant problems of corruption;
- Cash transfers to elderly and widows have not been free from corruption and misuse.
- Administering it will need a huge and sophisticated database system of particulars of individual households and transferring cash to them. Problem of fake cards and ghost cards cannot be ruled out.

4.35 Independently of cash transfers, the revamp of PDS is being considered under the new Food Security Bill on the anvil. This primarily involves a three way division of population among priority, general and excluded households. Priority households cover at least 46 percent of rural population (the proportion of population below poverty line as per Tendulkar's estimates plus a ten percent margin for errors) and they will get 35 kg of grain for the month at 'Anthyodaya Prices'; The general category households will get grains at minimum support price and the excluded will have to buy from the market. It is expected that 28 percent of rural population will be excluded under the automatic exclusion criteria e.g. owning of two-wheeler, a 3-wheeler mechanised agricultural equipment, etc. Similarly, there will be automatic inclusion criteria. It has been argued by some that a more universal PDS would be economically and operationally better than the three-way split. It is easier to exclude households based on verifiable criteria (one research claims that about 35 percent of rural population can be easily excluded based on such criteria) and entitling the residual households to subsidized rations. It is the inclusion errors that hurt the poor the most and as they by default get included after excluding those who satisfy the verifiable criteria, this system is seen as more equitable.

4.36 Each of the delivery mechanisms has its pros and cons. Some may be more suitable in certain types of transfers. Vouchers or coupons are considered more suitable in case of transfers where market is well developed and the scale is not so large. There are choices also with regard to whether the subsidy is to be given to the consumer (e.g. student by way of scholarship) or to the service provider (the degree college by way of grant). Subsidizing the service provider has the risk of underwriting inefficiencies in operations. ***The Commission recommends that the Government review all the subsidies from the standpoint of alternative delivery mechanisms to optimize their outcomes.***

Chapter 5 - A Framework for Assessing Performance and Outcome Monitoring of Schemes

> If you do not measure results, you cannot tell success from failure.
> If you cannot see success, you cannot reward it.
> If you cannot reward success, you are probably rewarding failure.
> If you cannot see success, you cannot learn from it.
> If you cannot recognize failure, you cannot correct it.
> If you can demonstrate results, you can win public support.
> Source: Adapted from Osborne & Gaebler 1992

5.1 There are many reasons why a government would want to assess and monitor performance and outcomes of its expenditure. Firstly, there are internal pressures to assess performance. Government's resources are limited while competing claims on them are many. If the government has to make a rational choice between these multiple demands on its resources, the best way would be to allocate more resources to Schemes / programs where performance and outcomes are better; and investigate the reasons for poor performance and outcomes in respect of others. Secondly, there are external pressures as well. Tax payers and civil society are keen to find out whether the government has spent the money it had collected from the citizens wisely. Thirdly, assessing performance and outcomes allows the government to fix accountability internally on those responsible for implementing the Schemes and programs.

Evidence based policy making

5.2 While there are internal and external rationale for assessing performance and outcomes, there is also a very good reason why they are important - they provide evidence based on which policies can be formulated. It is perhaps true that policy decisions may be more influenced by values, interests and personalities, but the evidence and analysis can be very useful, even decisive, in informing policy makers' judgments. Importantly, they can condition the political environment in which the judgments need to be made. Without evidence, policy makers must fall back on intuition, ideology, or conventional wisdom - at best, theory alone. (Gary Banks, 2009, Challenges of Evidence-Based Policy Making)

5.3 There are essentially two broad levels or stages at which the assessment is done and they serve somewhat different purposes. One is monitoring the performance through a Scheme's implementation (life) cycle; and the other is evaluation at the completion of the Scheme. The monitoring helps senior management in taking stock of progress at intermediate stages to ensure that the implementation is running along the expected course. If it is not, it allows them room to take suitable corrective actions. Evaluation, on the other hand, goes beyond performance in terms of set targets to assessing the impact of the Scheme. It explores the various factors that have either contributed to success or failure of the program and draws lessons for future. The differences between the two are brought out in the box 5.1 below. Though they serve slightly different objectives, monitoring and evaluation are complementary. They are both necessary for a government to continuously engage in improving the effectiveness of its many Schemes and programs.

Box: 5.1 - Complementary Roles of Results-Based Monitoring and Evaluation

Monitoring	Evaluation
Clarifies program objectives	Analyzes why intended results were or were not achieved
Links activities and their resources to objectives	Assesses specific causal contributions of activities to results
Translates objectives into performance indicators and sets targets	Examines process implementation
Routinely collects data on these indicators, compares actual results with targets	Explores unintended results
Reports progress to managers and alerts them to problems	Provides lessons, highlights significant accomplishment or program potential, and offers recommendations for improvement

5.4 As far as high value infrastructure projects involving multiple agencies / stakeholders are concerned, the performance monitoring would require a qualitatively different monitoring mechanism. The Commission had occasion to discuss this in its Third Report in which a separate chapter on Project Management was included. In this chapter, we propose to examine frameworks for monitoring performance and outcomes of government Schemes and programs. Before doing so, it would be instructive to briefly capture some international experience in this regard, particularly that of the U.K. and Australia specifically.

Australian Experience[9]

5.5 Australia is one of the pioneering countries in public sector reforms. Starting from 1980s to present day, it had tried out several reforms in public sector. Monitoring and evaluation was one such area. In 1987 Australian government introduced medium-term expenditure framework involving forward estimates of spending. On the one hand, it freed up the budget process from detail line item scrutiny and provided Departments with greater security about future resource availability. In return, the government insisted upon greater focus on efficiency and effectiveness of government programs through sound management practices, the collection of performance information and regular evaluation. Department of Finance played a central role in guiding this process. One of the major initiatives during this period was introduction

[9] Australian Government's Performance Framework (No. 25 / April 2011) Keith Mackay, IEG, World Bank

of a formal requirement that all budget proposals should include a) a Statement of objectives; b) performance measures and c) the proposed arrangements for their future evaluation. The Departments were required to also prepare plans for systematic Monitoring and Evaluation of their programs. In 1988, the Australian Government adopted a formal evaluation strategy which required that every program is evaluated every three to five years; and that completed evaluation reports are published (excepting those which are sensitive) and placed before the parliament each year along with the budget proposals.

5.6 In the following years, the evaluation strategy was reviewed by a parliamentary committee and the Australian National Audit Office. On the basis of these reports, a separate branch responsible for providing guidance and support was created within Department of Finance. This branch prepared detailed handbooks on evaluation methodology, provided some basic training on evaluation, shared best practices and most importantly, promoted a community of evaluators within the government. In due course, the government discovered that a major limitation in its evaluation strategy was insufficient attention being paid to regular collection and reporting of performance information through a management information system. This eventually led to governments at all levels (federal, State and local) bringing out Annual Reports on service delivery. They provided performance information on a range of government services, such as public hospitals, schools, public housing, police, court administration, etc. Obviously, these helped improve transparency and accountability.

5.7 The evaluations were conducted by the line Departments themselves or were outsourced. The rigour and depth of evaluations varied. Some were rapid assessments of performance using available information, while others were more rigorous impact evaluations using detailed datasets. While most Departments set up evaluation units comprising two or three individuals, some larger Departments (employment, education and training) set up specialist evaluation units of 20 - 25 staff responsible for evaluation planning, advice on evaluation methodology, conduct of major evaluations, etc.

5.8 As many as 530 evaluation reports were published between 1993 and 1997 reflecting the extensive evaluation activity in the government. While the rigor and quality of evaluation reports was mixed, their usefulness was confirmed by independent reviews such as by the Auditor General, who observed that the success of evaluation was largely due to its full integration into the budget process. In 1994-95 evaluation was assessed to have influenced the Cabinet’s decision in 68 percent of the $3.74 billion of proposals considered.

5.9 In 1996 the Australian Government replaced evaluation strategy with an outcomes and outputs framework under which performance information was required to be collected and reported to aid policy development, Departments’ internal management and external reporting for accountability purposes. This framework was expected to clarify objectives and expected standards of performance; also demonstrate the results chains i.e. the logical links between spending, activities, outputs and contribution to desired outcomes. An advantage with this framework was it was cheaper, easier and quicker than evaluations. However, while they set out good from bad, they failed to explain the reasons for the performance. Recently, besides enlarging and refining the outcomes and outputs framework, the government has once again embraced evaluation as a tool for evidence based policy.

The U.K. Experience[10]

5.10 Systematic approach to performance policies began in late 1980s with the government enforcing performance reporting requirements on public service providers beginning with the newly created executive agencies and extending to non-Departmental public bodies. The coverage was so extensive that by mid-1990s there were few public services delivery bodies that did not have some form of performance reporting requirement. Around this time, the government introduced a formal performance reporting format called 'Output and Performance Analysis (OPA)'. The OPA reported on the Department's objective and what was achieved (output and performance) for the money spent. In 1998, the government replaced OPA with Performance Service Agreements (PSA).

5.11 The PSAs were essentially a contract between HM Treasury (Finance Department) and Ministries about what the ministry would deliver in terms of service. They were expected to provide a) a clear sense of direction; b) focus for delivering results; c) a basis for monitoring what was working and what was not working; and d) a better public accountability. A review of 800 odd PSAs covering period 1999-2002 by C&AG showed that only 15% were focused on outcomes; with another 27% covering outputs, 51% processes and 7% inputs. The PSAs were further fine tuned and in 2007 the concept of delivery agreement shared by more than one Department was brought in to reflect shared responsibilities for an outcome.

5.12 Till 1998, the UK government did not focus much on evaluation. However, in 1998, it brought a guidance book (the Magenta Book) for practitioners on a wide variety of aspects of evaluation. Many years of performance monitoring had created a formidable capacity in the government and outside in third party reviews and evaluations. Unlike in Australia, there is a high level involvement of civil society activity in this field.

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10 Performance in Government - The Evolving System of Performance and Evaluation Measurement, Monitoring and Management in the United Kingdom (No. 24/ November 2010) - Colin Talbot, IEG, World Bank

5.13 To sum up, the Australian and the UK experiences show that the performance and evaluations policies and ‘evidence-based policy’ have mutually supported and strengthened each other. If the desire for framing policies on the basis of evidence materialized due to availability of hard evidence from evaluation studies, these studies themselves were largely justified by the useful purpose they served in policy making.

Current practices in Government of Karnataka

5.14 The government expenditure is incurred under two categories Plan and Non-Plan which conceptually correspond to capital and revenue categories under which they are further classified. Broadly, plan expenditure relates to creating new capacity or expenditure on a new intervention, while non-plan expenditure relates mostly to maintenance of existing activities. This is a rather arbitrary construct and has been subject of much debate within and outside the government. Be that as it may, the point to note in the context of performance and outcome measurement is that most of non-plan expenditure (excepting pensions and debt servicing) is associated with delivery of services be they in education, health, policing, agriculture or infrastructure. All the plan expenditure and some portion of non-plan expenditure are incurred according to a plan or ‘Scheme’. Thus, both Plan and Non-Plan expenditure need monitoring.

5.15 Table 5.1 below shows distribution of State sector Schemes across different ranges of outlays in 2001-02. The Karnataka Administrative Reforms Commission in its Final report recommended that all Schemes below budget outlay of ₹ 5 lakh be abolished. It had also recommended that all Schemes introduced in VI Plan period be evaluated. This Commission had made similar recommendations in its First Report - firstly that a) all plan Schemes with provision less than ₹ 100 lakh should be abolished and b) Schemes with provision between ₹ 100 lakh and ₹ 500 lakh should be reviewed as regards their efficiency. Further the Commission had also suggested rationalization of Schemes by merging some of them and dropping some others altogether. The Commission made two other recommendations in its First Report which are relevant in the context of performance outcome monitoring. It recommended that a) a Scheme should be continued beyond the terminal (sun set) year only after proper evaluation by an independent organization and a fresh administrative sanction; b) the KFRA should be amended to provide for mandatory impact analysis of all projects / Schemes / programs with outlay of ₹ 50 crore or more.

Table 5.1 State Sector Schemes 2001-02

	Number	Percent
Up to ₹ 5 lakh	490	18.3
₹ 5 lakh to ₹ 10 lakh	295	11.0
₹ 10 lakh to rs 50 lakh	704	26.3
₹ 50 lakh to ₹ 100 lakh	298	11.2
Above ₹ 100 lakh	886	33.2
Total	2673	100.0

Source: Karnataka Administrative Reforms Commission Final Report, December 2001

5.16 It is important that number of Schemes is drastically reduced for two reasons: a) small and compact number of Schemes enables sharper and concerted focus; and b) since monitoring performance has transaction costs associated with collection, collation and analysis of data, smaller the number more cost effective will it be to monitor them. ***The Commission once again reiterates its recommendation that existing Schemes should be subjected to comprehensive zero base review and merge Schemes with similar objectives and scrap low value Schemes.***

5.17 The only established government-wide practice of collecting performance data is the Monthly Program Implementation Calendar (MPIC) which has replaced the earlier Monthly Multi-level Review (MMR). An important difference between MPIC and the MMR is that while the latter related only to plan Schemes, MPIC also covers Non-Plan Schemes of certain significance. At the district level some additional data is collected in respect of Karnataka Development Plan (the modified version of Twenty Point Program), which is reviewed by the ZP President and CEO of ZP once every month. Individual Centrally Sponsored Schemes and programs have their own management information system as prescribed by the Government of India. In addition, some Departments have their own bespoke applications like the 'Worksoft' in PWD. On annual basis, some performance data is captured in the Departmental Performance Budgets and Annual Reports. While the former are prepared to a generally accepted format, the Annual Report formats have varied widely. The Government has recently issued guidelines standardizing the format of Annual Reports. (G.O. No. FD/FPAC/FPI/AR/166/2010-11 dated 5 February 2011). According to these guidelines, the Annual Reports will hereafter carry performance data in Chapter 2 of the Report. The State Government had introduced Programme and Performance Budgeting (PPB) as part of USAID Reform Project on experimental basis in a few Departments, viz. education and health. Introduction of PPB in government was also recommended by the Estimates Committee and accepted by the government. However, the initiative has not been taken forward. The Government has also recently adopted Results Framework Document (RFD) to assess performance of the Departments on a yearly basis. The RFD is still in its early stages of implementation.

5.18 One regular source for evaluation is the performance audits conducted by the Office of Comptroller and Auditor General. As far as in-house evaluations are concerned they have been very few and far between. According to one source, only 39 evaluations have been done in the last seven years as against 700 Schemes implemented. It is understood that the Government is planning to set up a Performance Evaluation Authority of Karnataka (PEAK) to undertake evaluation of government Schemes. The Authority which will guide the evaluations would comprise eminent individuals from academia, civil society, public life, etc.

5.19 As for other levels of government i.e. the local bodies and parastatal organizations, the former are required to adopt a public disclosure policy (law) under which they are obliged to make public some performance information. The parastatal organizations viz. the government corporations, companies and societies are not subject to any rigorous performance monitoring and evaluation, although MPIC covers these organizations too.

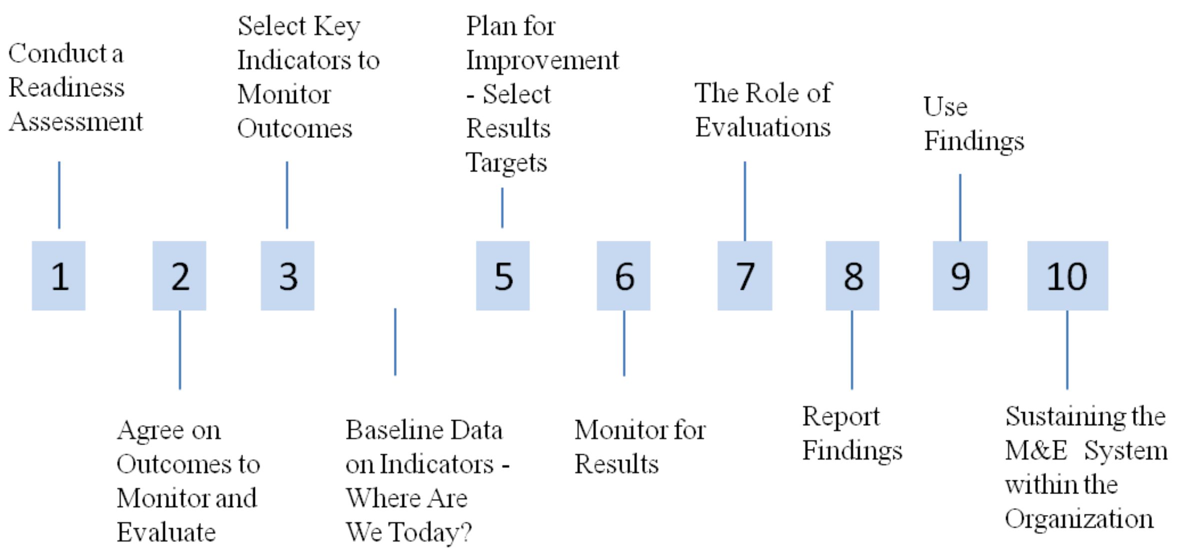
Suggested Framework

5.20 The figure 5.1 below provides ten critical steps that are involved in setting up a monitoring system. One of the most difficult and important among them is to identify and agree on outcome and performance indicators to monitor. This is a step that should ideally be addressed at the time of formulating the Scheme or program. It is best then to adopt the Scheme objective(s) for this purpose. The importance of properly arriving at Scheme outcomes can hardly be overemphasized. For the purpose of monitoring system, it is presumed that the people involved in designing the Scheme have done so with due diligence. While objectives for a Scheme may be articulated or otherwise known, it is rarely that indicators for measuring the satisfactory achievement performance at intermediate levels or of outcome are recognized at the outset. It is important that the performance and outcome indicators are identified upfront. Once this is done, the rest is more of a routine - collecting the relevant data, analysing it and taking suitable action.

5.21 The next most difficult part, of course, is generating, collating and analysing performance data. Apart from identifying what data to collect and at what frequency, it has to be done with great deal of discipline. Firstly, the government must promote a performance culture which presupposes that some importance is attached to performance. There must be some incentives for good performance and disincentives for shoddy performance. Performance information faces challenges on both sides of demand and supply. There must be demand for performance information from policy makers, political leaders and civil society. The performance data must be collected on a regular basis in a reliable manner. There are other challenges as well which have been identified by OECD (please see Annexure 5.a)

Figure 5.1

Ten Steps to Designing, Building and Sustaining a results-based M&E System



Source: Ten Steps to Designing, Building and Sustaining a results-based M&E System - Jody Zall Kusek and Ray C. Rist (World Bank)

5.22 The performance monitoring under MPIC is focused on tracking progress in respect of expenditure (inputs), physical outputs and activities. It also provides for an in-built corrective mechanism where the funds flow is not in tandem with progress in activities. However, given the number of Schemes it is just not practical for a Head of Department or Secretary to monitor activities of all Schemes for the entire State. ***The Commission suggests two refinements to MPIC – a) monitoring of progress of activities be limited up to only District level officers; and b) monitoring at higher levels be prioritized so that high value Schemes (say the 20% in number contributing to 80% in value) are monitored on a monthly basis and the balance reviewed on a quarterly basis.***

5.23 While MPIC provides a monthly monitoring of performance, the revised Annual Reports and RFD would offer an opportunity of an annual stock taking. Programme and Performance Budgeting provides a very good framework for performance monitoring on a yearly basis. Considerable work in capacity building and preparation of PPB in few Departments had taken place only in the recent past. ***The Commission recommends that the Government should further strengthen this practice by making it mandatory and gradually extending it to all Departments.***

5.24 As regular evaluation of Schemes and programs is important from the stand point of effective expenditure management, ***the Government should also take forward the initiative of setting up an independent performance evaluation authority or unit. It is advisable to have a centralized evaluation unit in order to ensure quality control and optimally use the scarce expertise in this domain.***

Chapter 6 - Departments of Forests, Ecology and Environment

6.1 Karnataka, with an area of 1,91,791 Km, accounts for 5.83% of the total geographical area of India, and ranks 4th in the country for percentage of land under forest cover. 22.61% of the State (viz. 43356.45 sq kms) is forested, the breakup of which is as given in the table 6.1 below:

Table 6.1 Forest areas in Karnataka

Sl.No.	Type	Extent (sq.km)
a.	Reserve forest	29,550.19
b.	Protected forests	3,585.22
c.	Village forests	49.05
d.	Unclassified forests	10,117.92
e.	Private forests	54.07
	Total	43,356.45

Annual Report 2009-10, Karnataka Forest Department

The forests of Karnataka with their magnificent tree growth, important water sources and rich flora and fauna play a significant role in maintaining environmental and ecological balance, and in supporting the daily lives of millions of rural people in the State directly or indirectly. Hence, development, conservation, and management of forests continue to be critical to the State. Accordingly, the related policies, institutional structures and forest governance need pro-active and active futuristic perspective.

6.2 It may be noted that there is no definition of forest under the Forest Act, 1927 and the official definition of forest is flowing from a Supreme Court Judgement of 1996. [11]As such, the data regarding the area under forests has to be more explicitly defined by the Forest Department in their documents including in the Annual Report. In this regard, the evolving definition for forests by Government of India may be taken note of. [12] This is more so because the classification of area reported under the forests by the Planning Commission [13] does not match with data in Annual Report of the Forest Department. In this context, it may be mentioned that there is an international

[11] Supreme Court order dated 12.12.1996 in WP No. 202/1995

[12] envfor.nic.in/divisions/fp/Evo_def.doc accessed on 30.06.2011

[13] Table 1.8 : Pattern of Land Utilisation –Statewise, (Agriculture and allied sector), planningcommission.nic.in/sectors/agri_html/selagri/T1.8.xls accessed 29.06.2011

definition of forests. The international definition of forests *interalia* takes into consideration the height of trees and density of trees for a given unit of land. [14]

Organisational Structure of Departments of Forests, Ecology and Environment

6.3 The Secretariat Department of Forest, Ecology and Environment is responsible for the management, protection and development of forests, conservation of wildlife, extension of social forestry, and the production and supply of firewood and minor forest produce for the rural poor and the local tribal population. This Department also handles the subject of protection and enhancement of water, air and soil quality, enforcement of environment related State and Central Acts and Regulations, and the coordination of various environmental policies and programs.

6.4 At the Secretariat level, the Department is headed by the Principal Secretary assisted by the Secretary (Forest) and the Secretary (Ecology and Environment). At the field level, the Administrative head of the Forest Department is the Principal Chief Conservator of Forests. There is a separate PCCF for wildlife who is responsible for the management of National Parks and Sanctuaries and enforcement of laws and regulations pertaining to wildlife in the State. A third PCCF deals with Research and Training. Details of Organizational Structure of Forest, Ecology and Environment are at Annexure 6.a

6.5 There are 13 forest circles headed by Conservators of forests, under which are 40 territorial divisions, 30 social forestry divisions, 11 wildlife divisions and 1 wildlife sub-division, 9 forest mobile squads, 6 working plan units, 5 research units and 1 training circle. The divisions are headed by deputy conservators of forests and the sub-divisions are headed by assistant conservators of forests.

The institutions under the Forest segment of the Secretariat Department include:

1. KFDC (Karnataka Forest Development Corporation);
2. KSFIDC (Karnataka State Forest Industries Development Corporation);
3. KCDC (Karnataka Cashew Development Corporation).

6.6 In the wing of the Secretariat Department dealing with Ecology and Environment, there is an administrative section headed by an Under Secretary, as well as a technical wing consisting of a Director and seven scientific officers which works with regional

[14] '(a) "Forest" is a minimum area of land of 0.05-1.0 hectares with tree crown cover (or equivalent stocking level) of more than 10-30 percent with trees with the potential to reach a minimum height of 2-5metres at maturity *insitu',* Definition of forests under the Kyoto Protocol: Choosing appropriate values for crown cover, area and tree height for India, published in Indian Forrester, May 2006.

Directors (environment) and field based scientific officers. Apart from this, the following institutions under the purview of the Secretariat Environment Department also carry out specified ecology and environment related functions:

1. KSPCB (Karnataka State Pollution Control Board);
2. KBB (Karnataka Biodiversity Board);
3. LDA (Lake Development Authority);
4. EMPRI (Environmental Management Policy Research Institute);
5. State Environment Impact Assessment Authority (SEIAA);
6. State Level Expert Appraisal Committee (SEAC);
7. Karnataka State Environment Appellate Authority.

Revenue receipts, Budgetary Allocation to Schemes of the Department of Forests, Ecology and Environment

6.7 Details of source wise revenue of the Forest Department are at Annexure 6.b. The Forest Department earns revenue from sale of timber, firewood, charcoal, other non-timber forest produce, compensatory plantation, Forest Development Tax and other miscellaneous receipts. Receipts have increased from ₹ 142.11 crore during the year 2007-08 to ₹ 467.73 crore in 2009-10. The significant rise is mainly due to the increase in the collection of Forest Development Tax (FDT) from ₹ 11.40 crore in the year 2007-8 to ₹ 271.47 crore in the year 2009-10. [15]

6.8 Details of budgetary Provisions of the Forest Department for the year 2010-11 are at Annexure 6.c. The budgetary allocation for the year 2010-11 was ₹ 560 crore, of which ₹ 393 crore was allocated for non-Plan and ₹ 187 crore was allocated for Plan Schemes. Of the total allocation, capital outlay was ₹ 39.9 crore, 26% was for Direction and Administration, and 24.5 percent for farm and social forestry programmes. Details regarding the objectives of the Schemes of the Karnataka Forest Department are shown in Annexure 6.d.

The Schemes can be classified as:

(i) State Sector Schemes (20 Schemes)
(ii) Externally Aided Projects (5 Schemes)
(iii) Centrally Sponsored Schemes (5 Schemes)
(iv) Central Plan Schemes (2 Schemes)
(v) District Sector Schemes (3 Schemes).

[15] Due to a decision taken by the government to levy a forest development tax on mining activities in the State, during the year 2009-10, a significant increase in the Forest Development Tax accrued to the Department (i.e. in the year 2009-10, the Forest Department started levying mining tax in the forested landscape of the State)

The major programmes and Schemes discussed in this chapter include:

(i) Forest conservation, development and regeneration

(ii) Ecotourism

(iii) Greening of Urban Areas

(iv) Social & farm forestry

(v) Compensatory afforestation programme

(vi) Maintenance of medicinal plant conservation, and

(vii) Samrudha Hasiru Grama Yojane.

6.9 Details of budgetary allocation for Schemes of the Department of Ecology and Environment (DEE) during the year 2010-11 are at Annexure 6 e. There are ten Schemes under the DEE of which nine are State Sector Schemes and one is a Centrally Sponsored Scheme. The total budget for 2010-11 under all the Schemes was ₹ 1362 lakhs, of which 62 percent (₹ 845 lakhs) was allocated to State Sector Schemes and the remaining 38 percent (₹ 517 lakhs) was allocated for Centrally Ssponsored Schemes. Among the State Sector Schemes, ₹ 386 lakhs was allocated to the Lake Development Authority, and ₹ 188 lakhs was allocated for Protection of bio-diversity in the State.

6.10 The Scheme for development of degraded forests is meant for rejuvenation of forests through afforestation, and measures such as protection, regeneration, soil and water conservation. The Scheme is being implemented in all the forest divisions in the State. During the year 2010-11 the Department aims at raising plantations across 884 ha of degraded forests under this Scheme. Though this is a well planned Scheme for the development of degraded forests of the State, people's participation is key for the success of this programme. ***There is a need to closely look at the implementation of Development of degraded forest Scheme during the year 2009-10, particularly because there is no proper mechanism to learn from the previous plantation exercise. There have been instances where plantation activities have been carried out without gauging the preferences of the people. Local people's opinion about the plantation should be taken into consideration prior to the implementation of the Scheme. Before plantation, the Forest Department should hold a workshop in the region where the plantation is to be carried out. A socio- economic survey is also necessary to find out the priorities of both poor and non-poor farmers.***

6.11 The natural landscape of Karnataka and its wide flora and fauna base, provide ample opportunities for the development of eco-tourism in the State. There are about 26 protected areas, covering about 6360 sq km i.e. 15 percent of the total forest cover of the State. The Department of Forest has a Eco-tourism programme whose primary aim is to create awareness about flora, fauna and wildlife in the State. Under the Eco-Tourism programme, the Forest Department plans to develop basic amenities for camping in terms of maintenance of guest houses/buildings, formation and maintenance of toilets, repairs to boats, purchase of benches, provision of drinking water facilities and other basic amenities in and around forest area tourist spots. Keeping in view the overarching objective of eco-tourism and also the need for revenue generation, the Department should manage eco-tourism spots with efficient and reliable infrastructure. In this direction, ***care also should be taken to ensure that the promotion of tourism in and around the State forests, particularly the protected areas, does not compromise the sustainability of interests of flora and fauna. The forests are vulnerable to reduction in size and deterioration in density due to inadequate governance resulting in encroachment, illegal felling and questionable mining activities, and poaching. Commercially driven tourism can further compound the problems unless a sustainable approach is adopted in protection of forests and inappropriate economic exploitation. As such, eco-tourism development requires a complete set of institutional, environmental and technology inputs which are coherently integrated with the natural habitat. Since expenditure on this Scheme has revenue potential, the Department should prepare a pre-project investment appraisal[16] for expansion of existing facilities or for investing in new projects. However, while prioritizing the activities and allocating the budget, the role of the local community in promoting eco-tourism needs to be properly recognized and the suggestions and a mechanism to capture the perceptions of tourists should be considered. A greater emphasis on the integration of social, environmental and cultural conservation is necessary for sustainable eco-tourism development through evolving appropriate programmes and guidelines for tourists/visitors. In this regard, the Commission is of the view that a 'State level Eco-tourism Strategy' as recommended under 'Guidelines for eco-tourism in and around protected areas' (Draft) by Ministry of Environment and forests, Government of India, 2011, should be developed by the Forest Department and should include a comprehensive plan for protection of reserved forest areas from the risks associated with eco-tourism activities.***

6.12 Under the Greening of Urban Areas Scheme, the Forest Department carries out (i) plantation of flowering and fruit bearing trees, (ii) establishment of tree parks and wood-lots, (iii) roadside plantations and avenue plantations in the towns and cities of the State. This Scheme is being implemented in all forest divisions of the State. ₹ 550.00 lakh has been allocated for the year 2010-11 for the maintenance of seedlings raised during 2009-10 as well as creation of new plantations. Under this

[16] Project Appraisal discussed in the Third Report of the Expenditure Reforms Commission.

Scheme, maximum fund is allocated to Dharwad (₹ 56.4 lakh), followed by Belgaum (₹ 47.9 lakh) and Chamrajanagara (₹ 1.9 lakh). It is noticed that, across the State, there is no proper mechanism to track plantation effectively. During the field visits to Nelamangala, the consultants engaged by ERC noted that the Department, despite planting 185,000 seedlings of 36 multipurpose tree species, has been able to transplant only 23,190 seedlings. The balance continue to be at the nursery, as the money was not yet released from the Zilla Panchayat. Funds from MGNREGS(Mahatma Gandhi National Rural Employment Guarantee Scheme) were used for the purpose of raising of seedlings. Additional resources would be required to plant them during the following year, as the cost of transplanting the plants from the nursery depends on the time elapsed since planting of the seedlings. Moreover, increased labour cost for planting them in the nearby area would also require additional funds. ***Labour intensive Schemes with a substantial component of earthwork that cannot be reliably measured (digging of pits) and of doubtful efficacy (poor percentage of survival of seedlings) lend themselves to abuse and hence need to be thoroughly revamped and streamlined for accountability. It is suggested that a priority list of the potential areas for planting should be prepared under greening of urban areas before the Forest Department takes up any new plantation.*** Urban Waste represents a glaring threat to the Environment and to human health if not handled and disposed properly. Cities and towns, streets, roads, pathways, parks and public places, lakes and tanks get highly polluted with the increasing loads of wastes. Surface water and ground water get contaminated from wastes with disastrous effect on ecosystems. [17] ***In this regard, the Forest, Ecology and Environment Department in its work with urban bodies should also explore the opportunities to evolve strategy for disposal of solid waste using Clean Technology in such a way that urban bodies' capacity is enhanced for counting and taking advantage of carbon credits. The Department could make effective use of the recently released information on the Ranking of Cities on sanitation[18] for the year 2009-10 (National Urban Sanitation Policy) by the Ministry of Urban Development, Government of India and evolve suitable guidelines to identify and prioritise urban areas with needs for implementing a comprehensive Environment and Ecology programme.***

6.13 To promote tree plantation on private lands and farm forestry, the Forest Department distributes seeds at a subsidized/nominal price to people as per their requirements for raising a variety of multipurpose tree species - flowering and fruit yielding species. In the year 2009-10 for the maintenance of 33,467 lakh seedlings raised during the

[17] Draft Manual on Environmental Audit and Climate change, comptroller and auditor general of India, 2010.

[18] http://www.urbanindia.nic.in/programme/uwss/Rating/Rating.htm

previous year, an amount of ₹ 128.43 lakh was allocated and a total of ₹ 127.98 lakh was spent***. In this regard, the Commission recommends that the investment made for planting of seedlings should be followed up with regular monitoring of trees planted under the program. The Department should prepare and publish an Annual Report providing an account of the trees planted under the programme which could be used to understand and document the survival rate of the seedlings planted.***

6.14 As per conditions stipulated by the Government of India, while approving diversion of forest lands to non-forestry purposes under the Forest (Conservation) Act, 1980, compensatory afforestation has to be carried out on an equivalent area of non-forest land or, in special cases, in degraded forests to the extent of twice the extent of forest land diverted. Similarly, in cases of violation of the Forest (Conservation) Act 1980, compensatory afforestation is required to be done to the standard extent, as well as of an additional area twice the extent of area diverted in violation of law. Annexure 6.f gives an abstract of the outlay of funds for CAMPA (Compensatory Afforestation Management and Planning Authority) for the year 2010-11. The major outlays are for conservation and reservation of forests (40 percent), Infrastructure Development (19 percent) and Project Specific activities (21 percent). In this regard, ***it is recommended that the Forest Department review its State budgetary allocation to Schemes that have the objective of forest regeneration and conservation; while making optimal use of financial resources available with CAMPA funds in line with Supreme Court directions in letter and spirit[19].***

6.15 The objective of the Scheme for maintenance of conservation areas for medicinal plants is to take up the survey, conservation, research and development of medicinal plants, and to promote and facilitate their cultivation, storage and marketing. A major component of the Scheme is the systematic documentation of medicinal plants in the State to create a reliable database which could facilitate the proper use of medicinal plants. Although the Forest Department has highlighted the potential of various medicinal plants species as cash crops, very few people have evinced interest in the cultivation of Medicinal and Aromatic Plants (MAPs). ***The cultivation and sale of these medicinal and aromatic plants will be successful only if their efficacy and safety are clearly established and certified by a recognized authority, and if the farmers can get a remunerative price for them from pharmaceutical firms, individual consumers, or other interested buyers. There is a need to identify good research institutions in the public and private sectors to take up the necessary scientific analysis, documentation, etc., to validate the utility of these products for***

[19] http://moef.nic.in/downloads/public-information/CAMPA-SC%20order.pdf

medicinal purposes. Innovative / progressive farmers should also be encouraged to take up MAPs cultivation in a bigger way.

6.16 The objective of the Scheme for Cultivation of Sandalwood Trees is to maintain and protect sandal plantations in traditional sandalwood areas of Shimoga, Mysore, Dharwad, Haveri, Hassan, Chikmagalur, Belgaum and Bangalore districts. Given the requirements of sandalwood cultivation, the Forest Department takes up works like chain link mesh fencing, watch and ward, soil working and cultural operations for enriching the older plantations. However, there is no information available on the seedlings planted and the survival rate of those plantations. ***Since academic institutions could play a very significant role in conserving biodiversity with minimal efforts and thus support the Forest Department in their rehabilitation programmes it is recommended that the Forest Department collaborate with the Institutions located in Shimoga, Mysore, Dharwad, Haveri, Hassan, Chikmagalur, Belgaum and Bangalore. Academic institutions should demonstrate the effectiveness of models through low-cost scientific interventions for a wider dissemination. There is a need for prioritizing the species based on their status such as endangered, rare, threatened or endemic. The Department could entrust a responsible role for academic /research institutions in their rehabilitation programmes by approaching the institutions in their respective zones to prioritize species that suit the climatic zone.***

6.17 The Samrudha Hasiru Grama Yojane aims at enriching the ecological assets of the villages by involving local communities in the preparation of integrated management plans, organization of training programmes for the village forest committees for maintaining and conserving local forests, promoting plantation on non-forest community lands and provision of alternative cooking fuel by introducing subsidized gobar gas facilities. In the year 2009-10, 36 integrated management plans have been prepared; 36 training programmes have been conducted; 3.6 ha of plantations have been raised and 158 gobar gas plants have been installed. Due to lack of the necessary skills required to build or maintain such facilities, the Department is unable to monitor the performance of this Scheme. This programme could also be implemented in association with other Departments (like non-conventional energy) which have the necessary skills to implement such Schemes.

6.18 The Karnataka Sustainable Forest Management and Biodiversity Conservation (KSFMBC) project is under implementation with the assistance of Japan International Cooperation Agency (JICA) from the year 2005-06 to 2012-13 (8 years). The project is being implemented in all the districts of the State. The main activities of the project include afforestation, soil conservation and moisture conservation, farm forestry, biodiversity conservation, Joint Forest Planning and management by forming Village Forest Committees (VFCs), habitat improvement in protected areas, restoration of mangroves in coastal regions, research, training infrastructure development etc. The financial outlay of the project is ₹ 745 crore of which ₹ 613 crore is reimbursable component from JICA and ₹ 132 crore is shared by the State Government. During the year 2009-10, there was an outlay of ₹ 162 crore and expenditure of ₹ 159 crore with physical progress achieved as below;

Raising plantations:	46,426 ha.
Maintenance of plantations:	93,091 ha.
Soil and moisture conservation works:	43,917 ha.
Habitat improvement works in protected areas:	571 ha.
Construction of new buildings:	13 nos.
Purchase of vehicles:	25 nos.

In a mid-term review and evaluation study carried out by STEM (Centre for Symbiosis of Technology, Environment and Management) in October 2010, of the project for the period 2005-2008, it was observed that the project had achieved physical progress of 34 percent in afforestation activities, about 16 percent physical progress in farm forestry and about 22000 ha of barren areas had been afforested. About 1215 Village Forest Committees (VFCs) and 4299 Self Help Groups (SHGs) had been formed. The study, involving 411 plantations covering 12947 ha, 269 farmers land, 47 institutions, 164 demonstration plots, 76 VFCs and 1513 VFC members, also observed that about 531 households had availed financial loan under the Scheme and about 356 households (23 percent of the 1513 households surveyed in 76 villages) had reported an increase in the annual income per household, also about 70 villages (of the 76 villages evaluated) had reported increase in the water table.

6.19 Several activities of the Forest Department are parallel to the activities/Schemes of other Departments viz., the Departments of Agriculture, Non-conventional energy, Rural Development and Panchayat Raj (RDPR), Watershed and the Agriculture Universities. The Forest Department has little or no technical skills or specialised staff of its own to implement and monitor many of these programs such as, for instance, the gobar gas programme under the Samrudha Hasiru Grama Yojane. There should be greater co-ordination between the Forest Department, RDPR and other development and welfare Departments, particularly at the field level, so that the combined capabilities, manpower and expertise can be mutually availed of with greater efficiency and lower expense.

6.20 One of the major constraints in effective implementation of the Schemes of the Forest Department is the shortage of field staff. Details of Staffing Pattern of the Karnataka Forest Department from 1981-82 to 2009-2010 and the category wise details of staff strength of the Forest Department 2009-10 are at Annexure 6.g. During the year 2009-10, of 3956 posts of Forest Guards 792 posts were vacant; similarly of 2243 Foresters 89 posts were vacant; seven of the nine statistical Inspectors' posts were vacant. All the 3 Forest Settlement Officers posts were vacant; the posts of Deputy Director and Assistant Director for Survey, Demarcation and Mapping were vacant; all eight posts of Superintendents of Forest Survey were vacant; 44 out of 61 Second Grade Surveyors and 19 out of 27 First Grade Surveyors were vacant; 19 of 27 Second Grade Draftsmen were vacant. In contrast the vacancy position in posts like Superintendents, Stenographers, Typists and Administrative Officers is not that alarming, indicating that at the intermediate and lower levels in the Department, non-technical and administrative support staff requirements are better met, while many of the technical positions remain unfilled. This would obviously affect the processing of the technical aspects involved in the design, implementation and monitoring of the various programmes and Schemes of the Department. Therefore, while the moratorium on new recruitment in position since the 1990s needs to be continued in routine administrative positions, in technical positions the Head of Department may be allowed to review the requirement on a case to case basis so as to remedy problems arising from large scale vacancies in key positions.

6.21 Details of National Parks and Wildlife Sanctuaries of Karnataka are at Annexure 6 h. A total of 26 protected areas have been established in Karnataka, of which, at present, 5 have got the status of National Parks while 21 are Wildlife Sanctuaries. About 6360.32 sq.km, covering around 3.31 percent of the State's geographical area, have been designated as protected areas in the form of Wildlife Sanctuaries, National Parks and Tiger reserves. A survey conducted in the villages located in the RGNP (Rajiv Gandhi National Park) during 2010-11 by the consultants of the Commission, indicates that among the respondents, 25% show a positive response towards the park establishment, while 10% are neutral and 65% still have a negative attitude towards the conservation policies in relation to their socioeconomic and ecological implications in the surroundings areas of the park. More than 96% of the population are found to have expressed the view that a ban on the agricultural activities within the park is the major reason, among others, for the negative attitude towards the park followed by damages caused due to wildlife attacks, restrictions on rearing domestic animals, collection of Non Timber Forest Products (NTFPs) and grazing, absence of local community involvement in conservation programme and tourism activities. People participation and consensual agreement with the Forest Department's objectives are critical for ensure safe living environment for wildlife and to avoid man-animal conflicts. ***There is a need for the Forest Department to work in tandem with other government Departments for effective implementation of its Schemes and optimum utilization of its limited resources for the protection and maintenance of the forest resources. In this regard, the Forest Department in co-ordination with the Agriculture Department can motivate farmers to shift cropping pattern in favour of crops that are not attractive to wildlife, by weaning the farmers away from crops like banana, sugarcane which attract wild life particularly the elephants. To avoid man-animal conflict, the Department needs to devise special measures to educate the farmers about appropriate cropping patters in farms near the forest areas.***

6.22 Karnataka is one of the States with rich mineral resources, particularly iron ore with considerable sections of the mines falling in the forest area. Significant area falling under forests share border with other States. The Forest Development Tax is a policy sensitive tax on mining activities in forest areas. In such areas if all the mining lease conditions are not enforced effectively, it leads to failure of forest governance. Such failure *interalia* leads to not only loss of potential revenue to State and the Centre but also induces grave and long term environmental damage, causes adverse impact on health of people and animals inhabiting along the highways, through which ore is transported, and reduces the life of paved roads. Although the revenue generation appears attractive in the short-term, ***in view of the overall long-term ecological impact of mining including on agriculture, ground water resources, wildlife, there is a need to harmoniously balance the short term and long term interests of the State.*** Although the standard conditions, to be agreed to by the lessee prior to grant of the mining lease, include soil and water conservation, afforestation measures, planting work on static dumps, and protection of forest areas to be taken up by the lessee, ***the Forest Ecology and Environment Department needs to ensure adequate monitoring measures for ensuring compliance of the conditions by the lessee with adequate and effective regard to the Government properties and land tenure, which should be accurately documented and disclosed in public domain.***

6.23 ***An effective coordinated enforcement mechanism also requires to be put in place by the government. Such mechanism has to be manned by officials of Forest Department, Commercial Taxes Department, Weights and Measures Inspectors, officials of Transport Department, police officers, officers of the Department of Commerce and Industry, and officials of Revenue Department. Such enforcement mechanisms also should have powers to monitor enforcement compliance and, progress in prosecution of offenders. Further, in order to ascertain that significant economic benefits of the mining are flowing to wider sections of local citizens without any adverse impact on sustainability of forests, the Planning Department***

and the Finance Department, in collaboration with research institutions such as ISEC, Indian Institute of Forest Management-Bhopal, IIM Bangalore, and Fiscal Policy Institute (FPI) need to make periodic assessment of the socio-economic impact of mining activities in forest areas and the quality of forest governance. The Government should use such research based inputs for a transparent and objective moderation of State forest and mining policy from time to time. The Finance and Forest Departments also need to explore the possibility to disclose the details of firm-wise Forest Development Tax collected from the top 100 mining firms, along with demand raised and arrears to be collected, in public domain every half year. Such a disclosure has also potential to enhance tax compliance.

6.24 ***The Forests, Ecology and Environment Department should ensure a regular audit of the reports of the reclamation and rehabilitation plan required under standard conditions. This would require permitting mining activities in forest areas based on objective based priorities, which need to be established by using modern technology like remote sensing and GIS (Geographical Information Systems) to help maintain ecological integrity and forest landscape in the State.*** Presently there is no evidence of adopting any long term strategy for issuing mining permits with focus on either ecological impact or on economic benefits to the State. As such ***this would require collaboration with Karnataka State Remote Sensing Applications Centre (KSRSAC) which can study detailed technical aspects for balancing short term and long term priorities of mining in forest areas.***

6.25 For the year 2011-12, the office of the Principal Chief Conservator of Forests (PCCF) has a common Sanctioned Schedule of Rates (SSR) for the State as whole; with instructions to prepare circle wise model estimates to be prepared by the concerned circle conservator in consultation with the Deputy Conservator of Forests. The common SSR has provisions to adopt SRs of the Public Works Department (PWD) for Roads, Bridges and Buildings, Minor Irrigation Department for Dams and Bunds, Watershed Development Department for soil conservation structures, Rural Development and Panchayat Raj Department for water supply and sanitary works and the Horticulture Department for gardening and allied activities. However, items like Clearing of weeds, shrubs etc., fixing of barbed wire fencing, earth work in excavation of pits etc., are common to Water Resources Department, Public Works Department and the Forest Department. The Departments execute the work as per the rates approved within the Department. Further, though the Forest and the Water Resources Departments adopt State-wise rate, during its discussions with the Public Works Department, the Commission could note that the PWD adopts circle wise rates. The Forest Department should also adopt the circle wise rates as notified by PWD. ***In this regard, the Commission is of the view that for the items of work common to the***

various Departments, a separate Committee could be established to list out the items of work common to the Departments and approve the sanction rates to be commonly followed by the Departments. The Committee could be formed from members from the appropriate Departments to ensure that concerns of each Department has been included. Further, for items of work which are in the domain expertise of specific Departments, the concerned Department could approve the rates, which can be followed by other Departments. The Committee should establish standard definition and turnout for productivity norms of the manpower and machinery employed, to be followed for the settlement of wages/remuneration, calculation of rates of the Departments. The established norms for the efficiency of the works could then ensure a common base for the sanction of rates by the Departments.

6.26 Forests are vital and valuable assets of the State, maintaining the environmental and ecological balance and constituting an important source of livelihood for millions of people. Expenditure on forest development is thus an important investment. ***All the major expenditure related decisions of the Forest Department must, therefore, be subjected to the rigour of Project Appraisal, and the returns on investment have to be carefully assessed. For this purpose, appropriate appraisal techniques, including green accounting for better valuation of eco-system services across the State, have to be put in place. The project appraisal should also internalise the relevant environmental audit guidelines prepared by CAG in 2010*** [20]***. This would facilitate the Department to plan and prepare itself to subject its activities to overall environmental audit.***

6.27 ***Going forward, there is an urgent need to put in place a reliable and (Information Technology) IT induced monitoring system to track the forest expansion/regeneration in a systematic manner including the quality of expansion in forest cover.*** Doing so would also enable the Department to put in place reliable mechanism to measure carbon credits which would have immense tradable advantage to the State. ***The Department has to take advantage of expertise available with Directorate of Economics and Statistics, e-governance Department as also with Fiscal Policy Institute to build HR capacity in this direction. The framework for Assessing and Monitoring Forest Governance,*** [21] ***recently released by Food and Agriculture Organisation can be used by the Department to strengthen its monitoring systems.***

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[20] http://www.icisa.cag.gov.in/BackGroundEnvironmentAuditing/Environment%20and%20Climate%20Change.pdf

[21] http://www.fao.org/docrep/014/i2227e/i2227e00.pdf

6.28 ***Sustainable flow of ecological resources is important for the sustainability of any region. Creating protected forested areas has an impact on the livelihood options of the people who depend on forests living in forested area. There is a need to develop an appropriate approach that would link sustainability of livelihood situated in a region in support of local and its effect on the ecosystem. This could provide a basis for evolving alternative policy options for decision takers and policy makers.*** Several valuation methods (one of them being contingent valuation method) exists for estimating monetary values for various ecosystem services and such methods could be used in the research framework of the Forest Department in order to facilitate better decision making processes. This could be done in association with other research institutions, and the Forest Department should extend close co-ordination with research institutes for operation for conducting such studies in the State.

Chapter 7 - Department of Rural Development and Panchayat Raj

7.1 As per 2001 Census, about 3.48 crore people that is about two thirds of State's population, lived in rural areas of Karnataka, spread over 59,630 habitations. In the Census 2011 the proportion of rural population is likely to be lower due to urbanization. Some of the characteristics of the State's rural population include:

i. Large number of scattered small habitations;
ii. Dependence on agriculture and related activities;
iii. Infrastructure like roads, electricity, housing and sanitation is much below expected levels;

7.2 The Commission having taken note of the changes in the poverty alleviation policy domain, and likely changes in the design of various programmes /Schemes particularly in the context of Food Security, and National Rural Livelihood Mission (NRLM) has limited scope of this chapter to some key programmes. The Commission hopes that NRLM would incorporate the best practices of SGSY and other programmes, and would be able to address the short comings experienced in design and implementation of the poverty alleviation programmes during the past four to five decades.

7.3 There is a general perception that most of the beneficiary oriented programmes across the Departments suffer from many imperfections in the selection of beneficiary itself. Many studies, including the study commissioned by ERC(Expenditure Reforms Commission), suggest that such imperfections are often the result of lack of verifiable data and/or manipulations of data at the time of selecting the beneficiary for entitlements. The Commission recognizes that challenges of selecting the right beneficiary at the right time can be effectively addressed with intense use of IT (Information Technology). The State Government has recently introduced 'Pancha Tantra' as the hub of information for rural development programmes in the State. On the other hand, efforts are on for issuing UID (Unique Identification) numbers to all in the country. However, any system including the proposed UID (AADHAR) can be used effectively only when there is a reliable data base and the means to cross validate the data of the individual beneficiary vis-a-vis the benefits under the various programmes like SGSY, Rural Sanitation, housing, school uniforms, scholarships, employment and MGNREGS(Mahatma Gandhi National Rural Employment Guarantee Scheme) etc. Therefore, RDPR Department needs to put in place a reliable and a robust IT infrastructure as they deal with almost two thirds of the State population.

7.4 The Department of Rural Development & Panchayat Raj (RD & PR) aims at facilitating development of rural areas through a number of Central Sector, Centrally Sponsored, State & District Sector programmes. The thrust areas of the Department programmes are institutional strengthening, rural infrastructure development, and natural resources management. A considerable amount of funds are allocated for the following thrust areas:

i. Mahatma Gandhi National Rural Employment Guarantee Scheme;
ii. Poverty Alleviation;
iii. Improvement of Rural Infrastructure which includes (a) Development of Rural Roads (b) Rural Water Supply and (c) Rural Sanitation;

7.5 The Department is headed by the Principal Secretary to the Government and the Secretary (Panchayat Raj) to the Government. The organization structure of the RDPR Department is at Annexure 7 a.

The Principal Secretary oversees activities relating to various Schemes and administrative matters of the Karnataka Rural Infrastructure Development Corporation Limited (formerly Karnataka Land Army Corporation (KLAC), administration of Group-A senior officer’s service & other subjects, and C&R rules.

The Secretary (Panchayat Raj) oversees all the activities relating to implementation of Karnataka Panchayat Raj Act 1993, Panchayat Raj Institutions matters, service matters of Grama Panchayat employees, Panchayat Development Officers, Executive Officers of Taluk Panchayats, service matters of Grama Panchayat Secretary-Grade-I & Grade-II, Second Division Accounts Clerk’s Subjects relating to Abdul Nazir Sab State Institute of Rural Development, Rural Energy Programmes, Mahatma Gandhi Institute of Rural Energy and Development (MGIRED), Pradhan Mantri Gram Sadak Yojana (PMGSY), Mukhya Mantri Gram Sadak Yojane (CMGSY), administration of Group-A (Junior Cadre) Officer’s service & other subjects, service matters of Group-B & C Officers & Officials.

7.6 Departmental functions have been divided into divisions, each headed by an officer of the rank of Additional Secretary/ Joint Secretary/ Deputy Secretary. The functions of the divisions include;

i. Self -Employment Programmes;
ii. Mahatma Gandhi National Rural Employment Guarantee Scheme;
iii. Rural Infrastructure;
iv. Panchayat Raj;
v. Finance;
vi. Administration;

Besides the divisions, the institutions under the administrative jurisdiction of the Department include (a) Panchayat Raj Engineering Department, (b) Karnataka Rural Water Supply & Sanitation Agency (c) Abdul Nazir Sab State Institute of Rural Development and (d) Karnataka Rural Infrastructure Development Corporation Ltd.

7.7 The programmes and Schemes of the RDPR Department are as at Annexure 7.b. The Schemes are largely categorized under the following heads:

i. Self Employment Programme;
ii. Gram Swaraj;
iii. Rural Infrastructure;
iv. Suvarna Gramodaya;

The major programmes and Schemes discussed in this chapter include the following:

i. Employment Schemes:
   a. Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), Karnataka
   b. Swarna Jayanti Gram Swarojgar Yojana (SGSY)
ii. Rural Infrastructure:
   a. Pradhan Mantri Gram Sadak Yojana (PMGSY)
   b. Chief Minister's Gram Sadak Yojana (CMGSY)
   c. Rural Water Supply and Sanitation including (a) Mini Water Supply Scheme (b) Piped Water Supply Scheme (c) Borewells with Hand pumps Scheme and (d) Total Sanitation Campaign
iii. Rural Housing.

Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), Karnataka

7.8 MGNREGS is a demand driven programme. Its objective is to enhance livelihood security in rural areas by providing atleast 100 days of guaranteed wage employment in every financial year to every household whose adult members demand unskilled manual work. If the applicant is not provided work within 15 days of the demand, un-employment allowance has to be paid. Rate of unemployment allowance is 25% of the minimum wage for the first 30 days and 50% for the remaining period. Under the Scheme, other objectives include generating productive assets, protecting the environment, empowering rural women, reducing rural-urban migration, etc.

7.9 The programme is being implemented as Centrally Sponsored Scheme on cost sharing basis between Centre and State in the ratio of nearly 90:10. Wage component is fully borne by the Government of India and material component is borne by Central and State Governments in the ratio of 75:25. In order to facilitate effective implementation of the programme, Administrative approval has been delegated upto ₹ 10 lakhs to Grama Panchayats. Also provisions have been made to provide administrative and technical support at Grama Panchayat and Taluk Panchayat level. Training support to Executive Officers (EOs) and District Programme Officers at Division level have been given. The following table provides performance of the MGNREGS in Karnataka;

Table 7.1 : Performance under MGNREGS in Karnataka

Description	2009-10	2008-09
Total released amount (₹ Crore)	2365	440
Releases from the Centre (₹ Crore)	2129	398
Releases from State (₹ Crore)	236	42
Total fund availability (₹ Crore)	3026	651
Expenditure (₹ Crore)	2641	357
Applications registered and No. of job cards issued	6142948	3643146
Demand for employment from house-holds (Nos.)	3416807	906503
Employment provided to the house-holds (Nos.)	3310995	896212
Employment generated in lakh person-days	1793	287
House holds completed 100 days of employment	405397	27009

Source : Annual Report, RDPR, 2009-10

Considering the wage rate at ₹ 125 per person, employment generation of 1793 lakh person days translates into ₹ 2241 crore. The expenditure so made constitutes 85 percent of the total expenditure, while the minimum labour to material component ratio is 60:40. [22] This also makes out a case for using machinery, particularly when durability of assets is critical for continued benefit from such assets. Further, it could be seen that during the year, out of 34,16,807 households only 4,05,397 (12 percent) households could be provided with 100 days of employment. This implies that the programme is unable to provide the stipulated 100 days of employment for all the households who have been issued job cards under the programme or there could be an overstatement of registration of the job cards.

7.10 Details of the works completed under MGNREGS are at Table 7.2. During the year 2009-10, under MGNREGS, 1,79,882 works have been completed of which land development (23 percent), irrigation facilities to SC/ST/IAY/LR (17 percent) and water conservation and water harvesting (16 percent) form major components.

[22] Para 6, Schedule 1 (Section 4(3): MINIMUM FEATURES OF A RURAL EMPLOYMENT GUARANTEE SCHEME: The cost material component of projects including wages of the skilled and semi-skilled workers taken up under of the Scheme shall not exceed forty percent of the total project costs.

Table 7.2 : Details of works completed under MGNREGS in Karnataka

Works Under MGNREGS (No of completed works)	**2009-10**	**Percent with respect to total**
Rural Connectivity	15169	8%
Flood Control	11121	6%
Water Conservation and Water Harvesting	29136	16%
Renovation of Traditional Water Bodies	8152	5%
Drought Proofing	21742	12%
Irrigation Canals	12804	7%
Irrigation Facilities To SC/ST/IAY/LR	31161	17%
Land development	41318	23%
Other works	9279	5%
Total no. of works	179882	100%
Wage per person per day (in ₹)	70	
Cost Per Person per day(in ₹)	114	
Avg.no. of Laboures Per Work	24	
Avg. Person per day per Work	504	

Source: MGNREGS website, http://nregalndc.nic.in/netnrega/homestciti.aspx?State_code=15&State_name=KARNATAKA accessed 07.06.2011

Convergence of MGNREGS with Welfare and Development Schemes (Dharwad)

7.11 During its district visit, the Commission could observe the convergence of MGNREGS Scheme in the Dharwad district at two levels, one with the welfare Scheme and the other with the developmental Schemes. Under the welfare Schemes MGNREGS converges with Adult Literacy Program, NRHM (National Rural Health Mission), and Banking and Financial Inclusion. For the purpose of the rehabilitation of villages in flood affected areas, the villagers have been appointed for the construction of new houses under the MGNREGS Scheme. The MGNREGS Scheme is also used for implementation of activities for Special Development Plan (SDP), public buildings like Anganwadis, Schools, PHC's, etc. Further, the Preraks and Sah-preraks appointed under Continuing Education Program (CEP) have been effectively included under MGNREGS. Active members from the Preraks and Sah prerakhs have been selected and trained as Mates under MGNREGS. As a good number of beneficiaries in wage employment are generally illiterate and hence such kind of convergence goes a long way in empowering the workers, at least to understand their entitlements and obligations under the rural development programmes in general and MGNREGS in particular.

MGNREGS Mates and MGNREGS Work sites (Dharwad)

7.12 The MGNREGS site acts as a nodal point of welfare activity. MGNREGS Mates have been entrusted with the responsibility of imparting functional literacy skills to MGNREGS workers after work hours at MGNREGS work sites and the Mates also generate awareness about the Act among the people. By the end of December 2009, 5620 illiterate MGNREGS workers were being taught at the work sites/ centres after work hours.

Women Participation under MGNREGS (Dharwad)

7.13 There is crèche facility for female workers at MGNREGS work sites. Since there is good turnout of women seeking work at MGNREGS worksite, it is a very appropriate location for disseminating information relating to women and child health care. The ANM/ASHA (Auxiliary Nurse Midwife/Accredited Social Health Activist) disseminate health information on a particular day in a week at the worksites of MGNREGS, the workers are told about the importance of sanitation and hygiene, importance of good nutrition, clean drinking water and information about various health Schemes like Family Planning, Janani Suraksha Yojana, need for institutional deliveries, Madilu Kit, Immunization programmes etc. The medical kits were distributed to Gruhmathe through Village Health and Sanitation Committee (VHSC) under NRHM to take care of minor injuries at the work site.

Use of Technology under MGNREGS (Dharwad)

7.14 Bio metric cards and the use of GPS (Geographical Positioning Systems) in monitoring are some of the Information and Communication Technologies (ICT) interventions that have taken place for MGNREGS implementation at Dharwad. A district model is being implemented under which a public sector bank and their technical service providers have been entrusted with the job of making all the MGNREGS payments through IT enabled biometric cards. The model eliminates the need of intermediaries and the payment of wages is done at work site on a particular day in a week. The worker is able to check his balance and is able to know the exact amount in his / her bank account. Also, to make the system more efficient GPS has been introduced to monitor the MGNREGS works. Using satellite images and database of Dharwad district taken by Karnataka State Remote Sensing and Application Centre (KSRSAC); picture of the work, estimate of the project, co-ordinates of that point, estimate of the labour component, material component, etc., the work can be monitored. The cost of the database infrastructure is ₹ 1.5 lakh, available for the entire district and the cost of each equipment is about ₹ 11,000. The GPS instrument captures the geographical co-ordinate points of the work site, the instrument is then connected to the computer where the software is installed. Using the software and the data received from the GPS instrument, the location of the work site can be seen on the map to identify the progress of the work. Use of GPS thus helps to monitor the works in a systematic manner, prevents duplication of work, and reduce duplication of payment.

7.15 The overall responsibility for the effective implementation of the Scheme as per provisions of the MGNREGS lies with the State Employment Guarantee Council at State level, district programme co-ordinator at district level, programme officer at taluk level and Grama Panchayat secretary at the grass root level. Grama Panchayats (GPs) have to prepare a shelf of projects based on the demand for works. The GP secretary is responsible for the issue of job cards and the TP monitors the implementation of works by the GPs and also ensures that social audit is done through the Grama Sabha.

7.16 During field visits to districts carried out by consultants appointed by the Commission for study of RDPR Schemes, it was observed that a number of complaints have been received regarding issue of job cards to ineligible labourers (those who are residing outside the Grama Panchayat boundaries). Also, in the process of preparation of shelf of projects under the MGNREGS programme, the level of community participation was low. Other observations included delay in payment of wages, and low awareness among the households about the programme benefits and features.

7.17 Considering the present implementation scenario of works under MGNREGS the Commission recommends regular orientation of the officers at Taluka and Grama Panchayat level on the programme implantation capacity and effective monitoring of the works. Since the works are wide-spread over geographical space and number of job cards issued being large, ***there should be a system to ensure that the employment accrues to the local beneficiaries within the jurisdiction of the Grama Panchayats. The Grama Panchayats need to be supported in terms of training for proper screening of the beneficiaries before allocating employment. In this regard, the model followed by the Dharwad district for convergence of welfare and development activities with MGNREGS could be appropriately adopted in other districts. Since the model allows for the MGNREGS works to be taken up based on local needs, a better and effective participation of local persons in identification of works is desirable. The Information Technology interventions followed in Dharwad district in terms of GPS and biometric job cards could be appropriately replicated to ensure equitable benefits with less scope for leakages.***

7.18 One of the concerns with regard to effective implementation of MGNREGS is the creation of durable assets under the programme. It is therefore critical that the output of work under MGNREGS should be adequately quantified with respect to the number of hours of employment, number of employment-days (man hours) created under the Scheme. In this regard, the labour/output quantity specified for the person day for the wage rate specified under the Scheme could be made use of. The monitoring the Scheme should include the quantity of work done and therefore would also help to monitor and document valuable assets created under the programme. The ***Commission in its 2nd report has emphasized the need for social audit in various programmes. Care should be taken that the effectiveness of social auditing is not diluted while upscaling social audit in MGNREGS, particularly when SIRD (State Institute for Rural Development) is limiting its participation in social audit. MGNREGS wage rate is rightly linked to productivity/turnout. The Commission appreciated the practicality of this linkage. As such the monitoring of turn out requires to be done with due care and attention by suitably trained supervisors. Such linkage of wage to turnout needs to be extended to all wage programmes implemented by various government Departments, in Irrigation Department, PWD, Forest Ecology and Environment Department and Agriculture Department.***

Swarna Jayanti Gram Swarojgar Yojana (SGSY)

7.19 The Swarna Jayanthi Grama Swarozgar Yojana is a self-employment programme, which aims at bringing up the poor families above the poverty line. This is a holistic programme, covering all aspects of self-employment such as organisation of the poor into self-help groups, training, credit, technology, infrastructure and marketing. SGSY is funded by the Centre and the State Governments in the ratio of 75:25. Under SGSY, the key activities identified in the State are dairy, sheep rearing, readymade garments, food processing, floriculture, agarbathi manufacturing, sericulture, carpentry, handicrafts, leather products, bamboo products, weaving and brick manufacturing. The University of Agricultural Sciences, RUDSETI (Rural Development and Self Employment Training Institute), KEONICS (Karnataka State Electronics Development Corporation Limited) and ATDC (Apparel Training and Design Centre) institutions have been strengthened by providing infrastructure facilities to train the Swarozgaries. RUDSETI is an NGO promoted in 1980s by various participating banks in each district. This initiative, in support of self employment, is unique to Karnataka as it is in addition to the Guidelines issued by GOI (Government of India) under the relevant programmes from time to time. The Commission suggests that the NRLM into which the self employment programmes are going to be subsumed during the current year would benefit from historical experience of structure and progressively the direct involvement of the officials RDPR into self-employment programmes at operational level would be minimized.

7.20 Details of financial and physical progress under SGSY is given in at Table 7.3. Under SGSY, during the year 2009-10, 7018 groups have been formed and 91366 swarozgaries have been assisted. Though the number of beneficiaries have increased over the years, a key cause of concern could be rising unit costs of intervention of the programme. The financial cost per swarozgar has increased from ₹ 11,534 in the year 2005-06 to ₹ 13,137 in the year 2009-10.

Table 7.3 : Details of financial & physical progress under SGSY

	Year	2005-06	2006-07	2007-08	2008-09	2009-10
Financial (₹ Crore)	Target	53.42	59.26	90.41	106.89	109.61
	Achievement	55.91	57.23	98.8	107.31	120.03
	%	105%	97%	109%	100%	110%
Groups formed	Target	2883	3567	5316	6348	5104
	Achievement	4019	7271	7226	7384	7018
	%	139%	204%	136%	116%	138%
Swarozgaries assisted	Target	32511	37603	65304	76834	63216
	Achievement	48473	46407	82158	88794	91366
	%	149%	123%	126%	116%	145%
Financial Achievement	Per Swarozgar (₹)	11534	12332	12026	12085	13137

Source : Annual Report, RDPR, 2009-10

7.21 The consultant appointed by the Commission for study of the SGSY programme noted that the awareness about the SGSY Scheme was very low. Many of the households had not undertaken any income generating activities due to lack of proper training and mostly due to lack of entrepreneurial skills or inadequate marketing support and the associated market risks. The areas of concern for implementation of the SGSY included poor economic condition of the Self Help Groups (SHG) and lack of adequate manpower and professionals to implement the process oriented training programmes.

7.22 In an Impact Assessment Study conducted by Technical Consultancy Services Organisation of Karnataka (TECSOK) in the year 2004 for evaluation of the Vishwa Programme, [23] it was observed that the Self employment and wage employment components of the Vishwa programme had positive effects on the standard of living of the beneficiaries. The beneficiaries were involved in wage employment as well as

[23] The Vishwa programme was conceptualized by Government of Karnataka in the year 1991 to provide continuous productive employment to rural persons. Implemented by the Directorate of Industries and commerce, the Vishwa programme features included a total approach of imparting training, organizing training-cum production facilities and providing infrastructure support to NGOs and other agencies in implementing the programme.

self employment after the programme. In the sample study covering 813 beneficiaries in 13 taluks in four revenue divisions (Bangalore, Mysore, Belgaum and Gulbarga), the consultants noted that the training provided under programme had enabled about 47 percent of respondents to take up income generating activity. Also about 51 percent of the respondents had taken loan upto ₹ 50000 for starting income generating activity under micro enterprises i.e. tiny and cottage industries. With regard to wage employment, the coir sector had maximum number of beneficiaries followed by handicrafts, services and food processing. Also sectors like leather and rexine had provided 100 percent employment followed by textiles and food processing sector. Further, with regard to self-employment the study noted that lack of confidence of the trainees was one of the main reasons for hindrance in taking up income generating activity. The study recommendations for need of target based training programmes, counseling and guidance services, marketing support are instructive for the SGSY programme. An evaluation study of SGSY Scheme in Dharwad District by RUDSETI (Rural Development, Self Employment Training Institute), Gandhinagar, Dharwad also indicates that though there has been an improvement in the living conditions of the beneficiaries under the SGSY, lack of confidence among the swarozgaries is one of the reasons impeding the beneficiaries to take up income generating activities. The Study by RUDSETI has highlighted the need to create marketing infrastructure and the need to provide incentives to the swarozgaries in the form of exhibitions and melas in co-ordination with credible NGOs. In this regard, the Commission is of the view that structured and organized training programmes are a critical component of the employment programmes. SGSY should be implemented as a need based programme wherein the employment needs of the community should be taken into account while designing sector specific programmes for the swarozgaries. ***The programme could be effectively implemented by ensuring active participation of credible NGOs in conducting training programmes and marketing support. The programme could be implemented through groups and effectively co-ordinated through co-operative societies with a view to bring down the costs of operations. The beneficiaries under the SGSY programme should be continued to be supported in the form of newsletters and information pamphlets for atleast a year after the completion of the training programmes. Also, institutionalizing a continuous and regular feedback program from the beneficiaries would help the Government to continuously improve and adapt its training modules to the needs of the beneficiaries. These suggestions may suitably internalized into NRLM.***

7.23 The Commission is of the view that expecting entrepreneurial spirit amongst the rural poor and designing programmes which require entrepreneurial skill is to a large extent unrealistic. Further, succeeding with any venture when adequate marketing support and marketing skill are absent on the part of beneficiaries either in personal capacity or in groups too reduces the probability of success of the programmes. Further, it is also unrealistic to expect that the government officials, who are into ‘no-risk’ & all-reward-jobs themselves, would possess any entrepreneurial spirit to empower and to create an enabling environment for the beneficiaries to succeed. Hence it is essential that programmes that require entrepreneurial spirit on the part of beneficiaries would need careful selection and nurturing of the beneficiaries. For this purpose the Department needs to bring out success stories, institute awards of recognition and publicise the same from time to time

Rural Roads

7.24 The development of rural roads, technical supervision, and monitoring functional responsibilities were transferred from January 2000 onwards to Rural Development and Panchayat Raj Department. Details of Rural roads in Karnataka are as follow;

Table 7.4 : Status of Rural Roads in Karnataka until end 2009

Description	Road Length (in Kms)
Asphalted roads	43,845
Water Bound Macadam (WBM) roads	22,059
Mud Roads	81,308
Total	1,47,212

Source : Annual Report, RDPR, 2009-10

The rural roads are being improved / maintained under various Schemes i.e. Pradhan Mantri Gram Sadak Yojane, Rural Infrastructure Development Fund RIDF supported under NABARD, Rural Communications-General and Special Development, 12th Finance Commission grants Scheme as well as Mukhya Mantri Grameena Raste Abhivruddi Yojane.

Pradhan Mantri Gram Sadak Yojana (PMGSY)

7.25 Pradhan Mantri Gram Sadak Yojana (PMGSY) was launched by the Central Government with the main objective to provide connectivity by way of All Weather roads to the unconnected habitations having population of more than 1000 by the end of 2003 and habitations having population of more than 500 by the end of 10th Five year plan. Details of financial & physical progress under PMGSY is at Table 7.5. As on March 2010, a total of 3204 works had been approved under PMGSY under various phases with an estimated cost of ₹ 3288 crore covering 15610 Kms. The total expenditure as on March 2010 was ₹ 2364 crore.

Table 7.5 : Details of financial & physical progress under PMGSY

Phases	Year	No of approved works	Length (Kms)	Estimated Cost (₹ Crore)	Expenditure Incurred in ₹ Crore (Upto March 2010)
Phase - I	2000-01	406	1501	196	109
Phase - II	2001-02 & 2002-03	887	2211	232	230
Phase - III	2003-04	349	1074	116	119
Phase - IV	2004-05	88	603	100	112
Phase - V	2005-06	177	1173	201	230
Missing link Phase - I	2006-07	54	127	21	25
Missing link Phase - II	2006-07	18	38	7	9
Phase - VI	2006-07	173	1569	329	328
Phase - VII	2007-08	313	2450	657	560
Phase - VIII Batch I	2008-09	310	2076	621	460
Phase - VIII Batch II	2008-09	429	2788	810	183
Total		3204	15610	3288	2364

Source : Annual Report, RDPR, 2009-10

Chief Minister's Grama Sadak Yojana (CMGSY)

7.26 Under Mukhya Mantri Grameena Raste Abhivruddi Yojane, funds are allocated to Taluk Panchayats based on the length of roads for maintenance of asphalted, water bound macadam and gravel roads. Apart from utilizing the funds for maintenance of roads, the amount provided in this Scheme is utilized for payment of wages of Daily Wage Employees. The district-wise budget allocation and expenditure details under CMGSY are at Annexure 7.c. As on 31 March 2010, a sum of ₹ 148.27 crores has been provided in the Annual Budget for 2009-10. Approximately, rural road length of 3471 kms has been maintained with an expenditure of ₹ 106.07 crore as on end of March 2010.

Rural Water Supply and Sanitation Schemes

7.27 The Karnataka State Water Policy, 2002 stipulates provision of drinking water at the rate of 55 lpcd (litres per capita per day) in the rural areas. As on end of March 2010, only about 31 percent of the rural habitations had been provided with the water quantity of 55 lpcd and above. The poor provisioning of adequate drinking water is further compounded by continued depletion of ground water table, and presence of toxic minerals in drinking water. A drinking water testing exercise covering all drinking water sources of rural areas, undertaken in the year 2001 revealed that out of 59630 habitations, 21008 habitations 24(35 percent) were affected by drinking water quality problems.

Table 7.6 : Details of quantity of water supplied to rural habitations

Service levels of Water	No of Habitations
0 – 20 lpcd	1,900
20 – 40 lpcd	14,178
40 – 55 lpcd	24,712
55 lpcd and above	18,840
Total	59,630

Source : Annual Report, RDPR, 2009-10

7.28 Potable drinking water is supplied to rural areas through the following three types of programmes;

a. Borewells fitted with Hand pump Scheme

b. Mini Water Supply Scheme

c. Piped Water Supply Scheme

Villages / Habitations with a population of 1000 and above are provided with Piped Water Supply Scheme. Villages / Habitations with population between 500 to 1000 are provided with Mini Water Supply Scheme. The other villages / habitations with population less than 500 are provided with Bore wells fitted with Hand pumps and single-phase motor connected bore wells. As on end of March 2010, about 2,71,980 water supply Schemes had been established in the rural areas of the State with about 79 percent being borewells with hand pump Schemes, as detailed below:

Borewells with Hand pumps Schemes	2,13,725
Mini water supply Schemes	34,073
Piped water supply Schemes	24,182
Total	2,71,980

Source : Annual Report, RDPR, 2009-10

[24] 5838 habitations – excess fluoride; 6633 habitations – excess iron, 4077 habitations – excess nitrate, 4460 habitations – hard water problems

Under the Water Supply Schemes, Operation and Maintenance (O&M) costs are provided annually to the Grama Panchayats for maintenance of the water supply Schemes. The O&M provided are ₹, 600 for each borewell, ₹ 3500 per annum for each Mini Water supply Scheme and ₹ 8000 for each Piped water supply Scheme. The financial and physical progress of the Schemes during the year 2009-10 are as follows;

Table 7.7 : Financial and physical progress of Rural Water supply Schemes for the year 2009-10

Water Supply Scheme	Financial Target (₹ Crore)	Financial Achievement (₹ Crore)	Physical Target (Nos)	Physical achievement (Nos)
Borewells with Hand pumps Scheme	101.68	41.9	3038	3782
Mini Water Supply Scheme	88.97	94.11	2661	3227
Piped Water Supply Scheme	63.55	141.16	1905	1943
Total	254.2	277.17	7604	8952

Source : Annual Report, RDPR, 2009-10

Total Sanitation Campaign

7.29 Total Sanitation Campaign (TSC) was launched in the year 2005 and is in implementation in all the districts of the State. Under TSC, families belonging to BPL are given subsidy of ₹ 3000 for construction of individual household toilets, while ₹ 20,000 is provided for construction of school and ₹ 5,000 is provided for anganwadi toilets. Since inception as on 31 March 2010, the total project outlay is ₹ 797.83 crore of which GoI has released ₹ 188 crore while GoK has released ₹ 87.45 crore. The total expenditure is ₹ 219.52 crore. As of March 2010, Karnataka State has achieved 18.3 lakh individual household latrine construction and the State stands at 19^{th} place at national level. The progress of Total Sanitation Campaign during the year 2009-10 is at Annexure 7.d. During 2009-10, about 11 lakh individual households, 103 sanitary complexes, 740 schools and 596 anganwadis were covered under TSC with an expenditure of ₹ 16.4 crore.

7.30 The implementing unit at the Village level is the Grama Panchayat. A Grama Panchayat can claim to have implemented TSC in total if it has achieved total ban on open defecation; access to toilets for all households, anganwadis, schools; safe disposal of waste water from kitchen, bathrooms and cowshed; establishment of proper solid waste management system and basic personal hygiene habits by all individuals.

7.31 Every year Nirmal Gram Puraskar (NGP) award is given to the Grama Panchayats as an incentive for achievement of TSC objectives. Since inception of TSC, out of 5628

Grama Panchayats of the State, 2251 GPs have got the NGP award. In addition to the above, Karnataka State has launched Nirmal gram award Scheme in October 2009 to accelerate and sustain the rural sanitation in Karnataka. The Nirmal gram award Scheme amounting to ₹ 10 crore includes about 694 awards in various categories viz. fully sanitized GP at taluk level, fully sanitized school at taluk level, fully sanitized anganwadi at taluk level, acceleration achievement award by ZP etc.

7.32 The consultants appointed by ERC for studying the rural water supply and sanitation programme in Karnataka observed that due to absence of a proper inventory of the bore-wells and record of functional and non functional bore-wells, the task of, planning, budgeting and allocation of funds was done without regard to adequacy and efficiency. Due to non metering of the power sources for the bore-wells, in most of the cases, power tariff had been levied even for defunct bore-wells. The community felt that the Grama Panchayat staff was inadequate for proper maintenance and distribution of drinking water. The field engineers at the GP and TP level were unable to provide adequate technical support to the GPs for O&M of the water supply Schemes. Though portable testing kits for checking water quality were made available to the GPs, the community had not carried out the tests due to lack of training in making use of the testing kits and information about the intervals at which the quality tests need to be carried out.

7.33 The Village Water and Sanitation Committees (VWSCs) were not constituted in most of the Grama Panchayats. Majority of the beneficiaries felt that the Grama Panchayats have to take up more awareness initiatives in providing drinking water to the villages. Generally the community is not informed at the planning stage of drinking water projects and a more meaningful implementation and maintenance could be ensured if the people's participation is envisaged at the planning stage of the drinking water projects.

7.34 During its discussions with officers of the RDPR Department, the Commission noted that there is a virtuous convergence among the water supply Schemes of the RDPR Department with the Water Supply and Sanitation Schemes taken up by KUWSDB (Karnataka Urban Water Supply Drainage Board). Thus the laying of water supply and sewerage pipes under water supply and sanitation Schemes by KUWSDB for urban areas have been extended to about 1200 villages. As on 31 March 2011, a total of 45 Schemes have been taken up with KUWSDB by RDPR by allocating an incremental cost for the existing Schemes of KUWSDB. In the absence of a practical mechanism to collect user charges for supplying drinking water to rural areas, the expenditure by RDPR remains as an investment in public-good. ***The Commission, while appreciating the convergence efforts of the RDPR Department is of the view that the RDPR Department should extend similar efforts in other Department viz.***

Agriculture, Watershed development, Forest Department to achieve economy of efforts between the development objectives of the Schemes of the Departments. For instance, the afforestation efforts of the Forest Department could be dovetailed with the employment objectives under MGNREGS. Similarly, planting of seedlings, watershed development programmes and the employment objectives under MGNREGS and SGSY could appropriately and jointly met by dovetailing the programmes with Water supply and Sanitation Schemes.

Total Sanitation Campaign - Shimoga

7.35 In a survey carried out in two GPs of Bhadravati taluk in Shimoga district, about 60 percent of the respondents believed that there is improvement in social status due to use of toilets constructed as part of the Total Sanitation Campaign. A distinct feature of the TSC in Shimoga included use of media to disseminate information about TSC and the benefits of practicing hygiene and good sanitation measures. The campaigning had been routed through GPs who were instrumental in spreading awareness through handouts, wall writings, radio and cable television network. The district NSS (National Social Service) volunteers were also actively involved in community activities viz. digging of pits for construction of toilets, door to door counseling of toilet-less households. As a result, there was increased awareness about good sanitation practices and a reduction in water borne diseases.

7.36 On the other hand, surveys carried out by the consultants in other districts like Mysore and Raichur indicate a poor awareness among the GPs towards the TSC. Though Mysore district had taken adequate measures towards school sanitation, there was a need to increase coverage of Individual Household Latrines (IHHL). Construction and usage of toilets was very low in the backward districts. Among the households surveyed in Raichur, 45 percent of the respondents indicated either religious sentiments or unsatisfactory construction or water problem as reasons for not using toilets. Also about 40 percent of the respondents indicated financial constraint, space constraint or smell nuisance as the reasons for not constructing the toilets.

7.37 ***Water Supply and sanitation campaigns need to be reinforced with wider and deeper literacy campaigns to quell misconceptions which have persisted through generations. The literacy and awareness campaigns need to be directed to bring about behavioral, cultural and attitudinal changes among the community towards good sanitation practices and optimal use of water for domestic and sanitation purposes***.

7.38 ***The TSC programme needs to be implemented by identifying and addressing the local constrains towards construction and use of toilets. Pour flush toilets may not be feasible in rocky areas, especially in the water scarce pockets of Raichur and***

other north Karnataka districts. In such cases, the TSC programme should be supported with adequate technical training programmes in use of ecological sanitation concepts.

7.39 ***In an eco-sanitation approach, the waste is treated by dry storage and by soil composting systems i.e. by adding soil, wood ash and leaves. The process is entirely biological and the end result of the natural process is a humus-like soil. A dry composting 'Eco-toilet, with two chambers (to be used interchangeably) dug out for composting the waste would help to conserve water and also protect the soil from contamination. The eco toilets could be effectively made use of as a solution to sanitation as well as a reliable and low cost water conserving technology. It can be built beside or as part of a house in rural areas and has the potential to contribute to water conservation measures.***

Rural Housing

7.40 According to 2001 census, the Karnataka State is facing shortage of 4.86 lakh houses in rural areas. As per latest estimates available in the Karnataka Housing and Habitat Policy-2009, (Draft) compiled by Housing Department, the house-less and site-less figure in rural areas was 13.54 lakh families and 11.52 lakh families respectively. The various programmes implemented in the State to address rural housing concerns in the State include (i) Indira Awaas Yojana (ii) Housing programmes of Rajiv Gandhi Rural Housing Corporation Limited (RGRHCL) which include (a) Rural Ashraya Housing Scheme including Navagrama housing Scheme (b) Dr. Ambedkar Housing Scheme (c) Grama Panchayat Housing Scheme.

Indira Awaas Yojana

7.41 Indira Awaas Yojana (IAY) is a centrally sponsored Scheme funded on cost-sharing basis between the Government of India and the State Government in the ratio of 75:25. The objective of IAY is to help construction and upgradation of dwelling units of members of households belonging SC/ST, freed bonded labourers, minorities in BPL category and other BPL non-SC/ST rural households by providing a lump sum financial assistance.[25] The programme is implemented through Zilla Parishads and District Rural Development Agencies (DRDA). The beneficiaries are selected from permanent IAY waitlists prepared on the basis of BPL lists in order of seniority in the list. The permanent IAY waitlists will be displayed publicly at a prominent place either in the GP office or any other suitable place in the village. In Karnataka, the

[25] Unit Assistance revised w.e.f 1st April 2010 is ₹ 45000 for new construction in plain areas, ₹ 48500 for new construction in hilly areas, and ₹ 20000 as credit under Differential Rate of Interest (DRI) at interest rate of 4%.

permanent wait lists have been prepared and the painting (public display) of the waitlist is nearing completion.[26] Houses are constructed by beneficiaries themselves. During the year 2009-10, a physical achievement of 1,58,417 houses was achieved against a target of 1,43,311 houses in Karnataka.

Rural Ashraya

7.42 Rural Ashraya is a State Government sponsored Scheme for housing the houseless rural poor with annual income of less than ₹ 11800. Financial assistance of ₹ 20000 per beneficiary is provided. In case of SC/ST, the entire assistance is provided as grant and for non SC/ST, grant assistance is limited to ₹ 10000 and balance is provided as loan assistance. The loan is charged at interest rate of 10 percent and payable in 180 installments. The beneficiaries are selected by Ashraya Committees from list of houseless persons identified in the Gram Sabhas.

Dr. Ambedkar Housing Scheme

7.43 Dr. Ambedkar Housing Scheme is a State Government sponsored housing Scheme for the SC/ST. The beneficiaries are selected by Ashraya Committees comprising of both official and non-official members appointed by the Government. The committee selects the beneficiaries from the list of houseless persons identified in the Grama Sabhas. The financial assistance under the program is limited to ₹ 20000 per beneficiary provided as a grant.

7.44 Under the Navagrama housing Scheme, Grama Panchayats are encouraged to undertake infrastructure for the layouts for the Navagramas wherever Ashraya houses are constructed. Navagramas will be separated colonies or extensions of villages with facilities such as interior road, drainage, street and house electricity, water supply facilities, manure pits and toilets for all houses.

Grama Panchayat Housing Scheme

7.45 Grama Panchayat Housing Scheme is a experimental Scheme of housing for EWS (Economically Weaker Sections) households in Grama Panchayat areas. The economic parameters of EWS are defined as households having an average monthly income up to ₹ 3300. Under the Scheme, a financial assistance of ₹ 20000 including loan and subsidy is provided. The loan component is ₹ 10000 and the subsidy component is ₹ 10000 for the general category beneficiaries and ₹ 20000 for SC/ST beneficiaries. The beneficiaries are selected only out of lists of siteless / house-less persons prepared by Grama Panchayats. Grama Panchayats periodically update the list by adding those eligible but left out and deleting those who were in the list but are

[26] Ministry of rural development, Government of India

ineligible. The beneficiaries are to be selected only out of such list prepared by Grama Panchayats, in the officially convened Grama Sabhas.

7.46 ***There is need to review the various housing Schemes implemented in the State. Since the housing Schemes are implemented at Grama Panchayat level, there is also a need to reconcile the database of the waitlisted houseless at State level in order to avoid duplication of beneficiaries and ensure provision of housing to the intended beneficiary. It is necessary that the Department in collaboration with Rajiv Gandhi Rural Housing Corporation makes medium term forecasting of demand for houses under various Schemes. Since raw material like sand and bricks required for housing are likely to become scarce in relation to the increasing demand from various users, such demand forecasting enables various government Departments to anticipate cost escalation and re-adjust the housing financing costs from time to time.***

7.47 ***The RDPR Department should ensure training and orientation of the officers at GP and TP level to effectively monitor the construction of the houses under the housing Schemes. Further the engineers at GP and TP level should be trained to provide technical support to the beneficiaries of the housing Schemes for economical and cost effective housing solutions.***

The Expenditure Reforms Commission has studied the functioning of various Government Departments and Agencies, and has recorded its recommendations in a set of four Reports. The First, Second and Third Reports were sent to Government in February 2010, February 2011 and May 2011 respectively. In these earlier Reports, the Commission has studied the Schemes of fifteen Departments in the Social Sector, Agriculture and Allied Fields, and in the area of Infrastructure, and has made recommendations to improve their efficacy. Wherever necessary, suggestions have been made for modifications in organisational structure, training of staff and introduction of new technology, including I.T.

This Fourth and Final Report of the Commission covers the Department of Forests, Ecology and Environment and the Department of Rural Development and Panchayat Raj, and also includes recommendations relating to some of the generic issues in the TOR viz. Levy of User Charges, Subsidies, Institutional Mechanism for Service Delivery and Performance Monitoring of Development Schemes and Programmes.

In these Four Reports, the Commission has:

a. made an over-all review of Public Expenditure in Karnataka from the point of view of its contribution to economic growth and human development,
b. made recommendations regarding prudential principles of expenditure management,
c. suggested measures for strengthening the instruments of legislative and executive control over expenditure and
d. stressed the need for introducing more rigorous pre-Investment Project Appraisal practices as well as structured Project Implementation Techniques in Government.
e. made certain suggestions relating to Subsidies, User Charges and Service Delivery mechanism.

A study of selected issues pertaining to the Home Department and the Department of Law, Justice and Human Rights has been entrusted by the ERC to the National Law School of India University (NLSIU), Bangalore. The report is being finalised by NLSIU and would be sent to the Government separately by the Secretary of the ERC, after it is received.

These reports of the ERC may be circulated among the Secretaries to Government, Heads of Department, Chief Executives of P.S.Us, Urban and Rural Local Bodies concerned, and to Universities, Research Institutions and other individuals / Institutions as the Government may deem appropriate, with a view to initiate informed discussion and debate regarding Expenditure Management by the State. The Government may also consider bringing all these Reports into public domain along with the Reports received from the Consultants.

We take this opportunity to express our sincere thanks to the officers of the Government Departments, Boards and Undertakings and Local Bodies involved in these studies, for their co-operation and valuable contribution to the deliberations of the Commission.

Shri L.V Nagarajan
Member

T.V. Mohandas Pai
Shri Mohandas Pai
Member

Shri B.K. Bhattacharya
Chairman

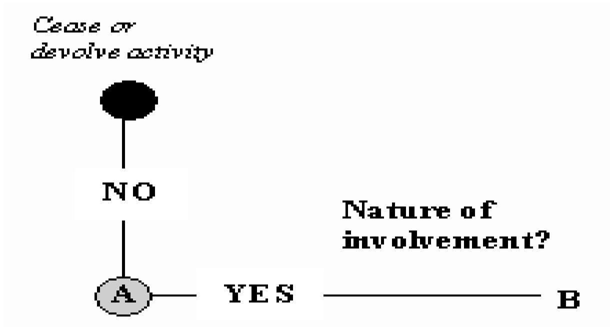
Shri Sanjiv Kumar
Member

G Ramesh
Shri G. Ramesh
Member

Bangalore:
Date: 30-06-2011

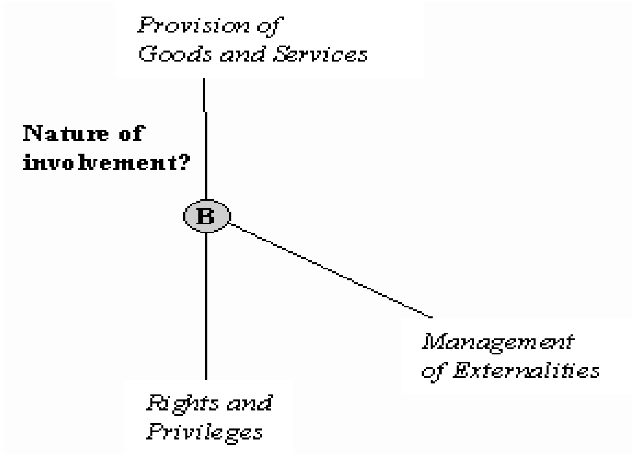
Annexures

A. Is there a public policy goal in providing the service?



The first question is whether government involvement is mandated by public policy. A clear and relevant public policy goal is the foundation for any government intervention. If the answer is YES, the question regarding user charging can be considered. If the answer is NO, it may be appropriate to cease the activity in question or devolve it.

B. What is the nature of government involvement?



At this stage it is necessary to determine the nature of government involvement. This initial distinction is instrumental in the charging decision. There are three paths that can be considered:

- Providing Goods and Services
    - Directly
    - Indirectly
- Managing Externalities

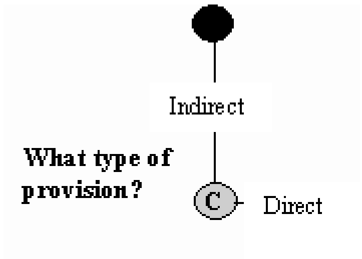
[1] This has been adapted from User Charging in the Federal Government - A Background Document, Treasury Board of Canada.

- Granting Rights and Privileges

The three separate paths may mask some overlap and intersection. The distinction, while artificial in part, helps to organize thoughts and keep the steps clear and transparent. This should simplify decision making.

Providing Goods and Services

C. What type of provision is appropriate?



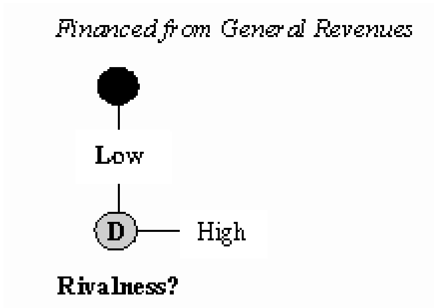
Once the government has chosen to provide goods and services, it must decide the appropriate means doing so:

- directly through government production of the good or service; or
- indirectly through partnership with the private sector. (This should be considered where there is a compelling case to produce or procure the good or service in the private sector, e.g., private sector provision, public/private partnerships, etc.)

The government must then determine the publicness of the good or service. Publicness, as discussed earlier in paragraph 3.3, refers to the extent to which a government activity is a purely public good or service. A purely public good or service can be described in two dimensions viz. rivalness and excludability

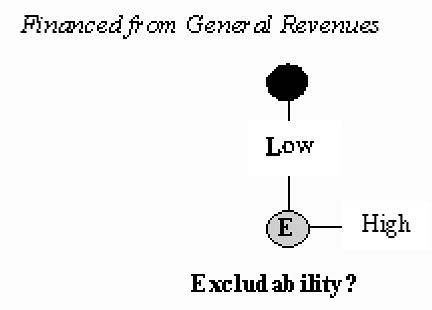
At the other end of the spectrum, purely private goods and services are rival in consumption and completely excludable. "Mixed" goods and services display different degrees of rivalness and excludability.

D. What is the extent of rivalness?



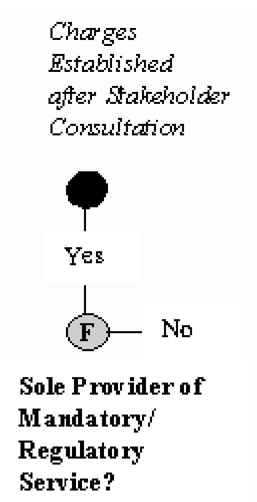
Goods and services that are candidates for user charging should be compared to other public sector activities to determine their innate rivalness. On a descending scale, internal security, income redistribution and disease control will come on the top with low rivalness, while provision of high-end medical care and four-lane express way may be considered to come at the bottom with a high degree of rivalness. The rationale and implication of this exercise are that activities with a higher (or lower) degree of rivalness are more (or less) desirable candidates for charging on efficiency grounds as compared to activities that are more public in nature. With mixed goods and services, there is a case for partial user charging.

E. What is the extent of excludability?



It should be possible to exclude users who are not prepared to pay. Identifying the level/cost of excludability of the goods or services helps determine whether charging is possible. The more (or less) excludable the good or service the more (or less) likely it is the government can charge successfully for its use.

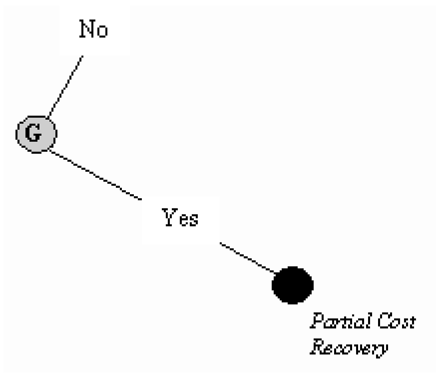
F. Is the government the sole provider of mandatory or regulatory service?



Government may play an important role in regulatory activities or in providing mandatory services. This situation presents a unique challenge to charging since it may not at first be evident why users of these services should be required to pay since significant public benefits are conferred. However, user charges can be justified if a direct economic benefit accrues to the user.

It will be important to ensure that users of mandatory services are consulted and charges established only following open dialogue between user groups and government. Appropriate institutional controls will ensure due process.

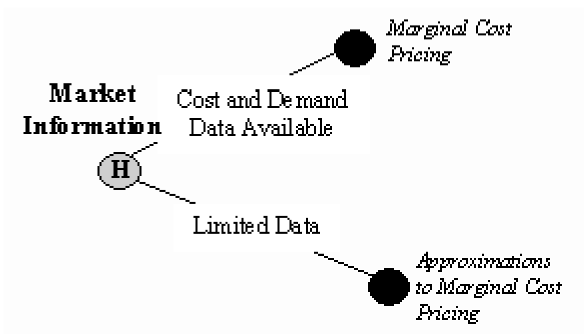
G. Is there a large capital investment involved?



The nature of the production process can affect the government's ability to impose user charges for some goods and services. This is particularly true where production requires a large, up-front capital investment or other sunk costs. A high initial investment and a decreasing unit cost as the quantity of output increases normally imply a natural monopoly. Marginal cost pricing will not allow full cost recovery.

While these issues are complex and should be dealt with case by case, the general charging strategy should be based on recovering average variable costs (roughly equivalent to operations and maintenance costs) while defraying all or part of sunk costs through appropriations.

H. Is market information available?



Once the characteristics and appropriateness of applying user charges are identified, the next step is for the Secretary of Department or the Head of the Department to gather as much information, i.e. on costs and usage patterns as possible, and develop a sound understanding of the data. The nature of the information available in part determines the appropriate technique.

Calculating Costs

The costs of determining optimal pricing strategies are economic costs and not simple accounting costs. While accounting costs are defined as those direct and indirect costs relating to a particular activity, economic costs are defined as the accounting costs plus those costs associated with the opportunities that are forgone by not putting resources to their highest-valued use. Ideally, the department should account for both. These costs should be determined for varying levels of service.

While it is very important to account for all related economic costs, it is also imperative that any deviations from outright accounting costs be justified. Transparency and a clear outline of all procedural rules preserve the integrity of all costing exercises.

Calculation of economic costs, particularly the opportunity cost element, can be high. A pragmatic approach might be to identify the likely divergence between economic and accounting costs. Then, if in the department's judgment the difference is small or the impact on user charging minimal, accounting costs may be an appropriate proxy. If the difference or the cost impact is large, economic costs should be estimated.

Average and marginal costs can be estimated from the above cost data. Average cost is the total cost associated with a given level of output divided by the number of units supplied -- sometimes called unit costs. Marginal cost is the change in costs for a unit change in output. These costs should be determined for different levels of service.

Understanding the Nature of Demand

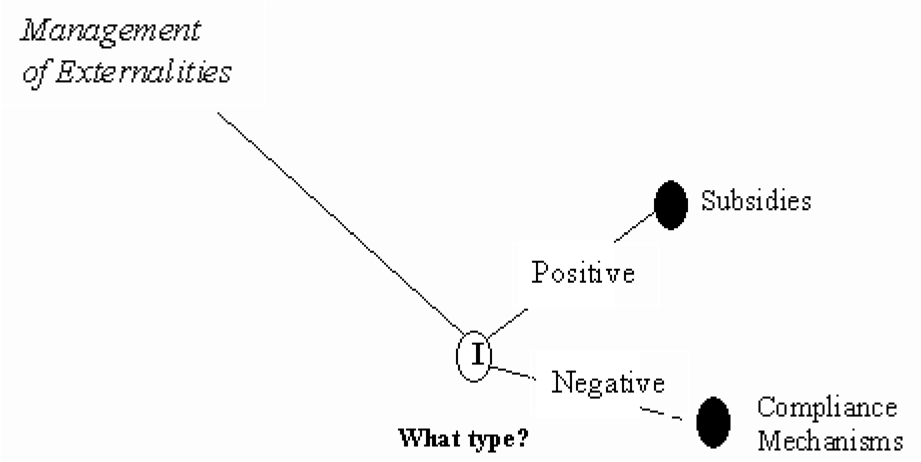
It is also important for departments to understand and identify the usage patterns of the service in question. Usage patterns refer to changes in demand for a service over a short period of time, such as a day or a season. Identifying usage patterns will help them assess whether user charges should include discriminatory or congestion-related pricing. For example, charges could be higher for use during peak demand.

After considering the above factors, the best pricing strategy will be based on equating estimated demand and short-run marginal costs, thus yielding a market price. If estimating demand and costs is not possible or if usage patterns are an issue, reasonable approximations are appropriate. These might include average incremental cost pricing, multi-part tariffs, Ramsey pricing, etc.

Managing Externalities

Government may manage externalities. Externalities are impacts of an economic transaction that affect individuals not participating in the transaction itself. They are in addition to the "private" costs and benefits of the transaction and are not captured in market prices.

I. What type of externalities exist?



There are two types of externalities. Activities that generate external benefits are deemed positive externalities (e.g., health education, vaccination, drug testing, etc.), and those that lead to external costs are deemed negative externalities (e.g., congestion, cigarette smoke, pollution, etc.).

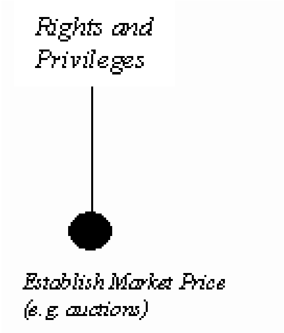
- Positive Externalities

An important argument for public sector involvement in the management of externalities is to support the creation of positive externalities. For example, government may create positive externalities by providing subsidies to producers. A classic example is government funding for research and development by universities and industry. The government provides these funds so that society at large benefits from the knowledge generated by these activities.

- Negative Externalities

The public sector often plays a role in managing negative externalities by applying charges or some other compliance mechanism. These controls can modify behaviour as well as recover appropriate funds for reversing or diminishing the impact of negative externalities. In this case, optimal pricing of the externality should "internalize" its social cost for producers. They take responsibility for these costs in addition to their private costs of production.

Granting Rights and Privileges



In certain cases, the government has the authority to grant a right or privilege to a private beneficiary. There are two important aspects to user charging: the cost of administering access and economic rents. The starting point for determining the charge for limited rights and privileges (e.g., permits, licences, royalties, etc.) is the cost to government of making that right or privilege available. These costs may include inspection, management and administrative expenses.

Economic rents should be taken into account in setting user charges. This will promote efficient use of the resource by the purchaser since the charge reflects the value of the economic rents. Furthermore, by better managing access to rights and privileges, the government can claim a fair share of the economic rents for the benefit of the public. Market mechanisms such as auctions will help establish the value of economic rents and thus, appropriate user charges.

Category	Number of Consumers / Power connections				
	2005-06	2006-07	2007-08	2008-09	2009-10*
Bhagyajyothi/Kutirjyothi	1460082 (10.81)	1756083 (12.35)	2077727 (13.75)	2360057 (14.67)	2564490 (15.16)
Domestic and AEH	9049893 (66.99)	9298265 (65.38)	9580546 (63.38)	10080995 (62.65)	10502055 (62.08)
LT Commercial	1094815 (8.10)	1168318 (8.21)	1225940 (8.11)	1302951 (8.10)	1375322 (8.13)
LT Industrial	240218 (1.78)	255984 (1.80)	266485 (1.76)	285145 (1.77)	299287 (1.77)
IP set	1464335 (10.84)	1510176 (10.62)	1705422 (11.28)	1756374 (10.92)	1824001 (10.78)
Water Supply	73786 (0.55)	84900 (0.60)	83394 (0.55)	88226 (0.55)	95951 (0.57)
Street Lights	60391 (0.45)	71143 (0.50)	86220 (0.57)	94831 (0.59)	100348 (0.59)
LT Others	59246 (0.44)	69190 (0.49)	79893 (0.53)	111782 (0.69)	143325 (0.85)
LT - Total	13502766 (99.94)	14214059 (99.94)	15105627 (99.94)	16080361 (99.93)	16904779 (99.93)
HT Water Supply	326	344	359	392	414
HT Industrial	3733	4296	4857	5552	6121
HT Commercial	2868	3304	3787	4252	4725
HT - Irrigation and Agricultural Farms, LIS, Govt. Horti.Farms	266	279	288	310	322
Private Residential Apartments	307	314	322	329	337
HT Others	1	3	4	-	7
HT - Total	7501 (0.06)	8540 (0.06)	9617 (0.06)	10835 (0.07)	11926 (0.07)
Total (LT+HT)	13510267	14222599	15115244	16091196	16916705
Grand Total	13510267	14222599	15115244	16091196	16916705

*Provisional; Note: Figures in parenthesis are percentage

Source: KPTCL

Sale of Power by Consumer Categories 2005-06 to 2009-10 Annexure 3.b

Consumer Categories	Sale of Power (in Million Units)				
	2005-06	2006-07	2007-08	2008-09	2009-10*
Bhagyajyothi/Kutirjyothi	269.30 (1.12)	343.51 (1.21)	371.87 (1.24)	422.36 (1.31)	453.78 (1.35)
Domestic Lighting / AEH	4829.60 (20.03)	5321.31 (18.70)	5810.93 (19.39)	6314.01 (19.60)	6760.98 (20.07)
LT Commercial	1108.74 (4.60)	1282.66 (4.51)	1458.58 (4.87)	1617.24 (5.02)	1814.99 (5.39)
Irrigation Pump Sets (10HP and below)	8600.74 (35.69)	10983.96 (38.60)	10670.66 (35.60)	11372.34 (35.30)	11570.56 (34.35)
Irrigation Pump Sets (>10HP)	9.90 (0.04)	19.27 (0.07)	20.85 (0.07)	18 (0.06)	19.42 (0.06)
Private Horticultural Nurseries	11.44 (0.05)	6.26 (0.02)	9.25 (0.03)	7.02 (0.02)	20.83 (0.06)
LT Industrial	1512.70 (6.27)	1573.27 (5.53)	1612.85 (5.38)	1569.47 (4.87)	1577.84 (4.68)
Water Supply - Rural	565.89 (2.35)	587.45 (2.06)	649.94 (2.17)	827.37 (2.57)	-
Public Lighting - Rural	438.08 (1.82)	598.61 (2.10)	229.51 (0.76)	525.91 (1.63)	-
Water Supply - Urban	96.65 (0.40)	119.16 (0.42)	125.47 (0.42)	13.11 (0.04)	787.82 (2.34)
Public Lighting - urban	108.84 (0.45)	34.19 (0.12)	280.66 (0.94)	25.94 (0.08)	690.01 (2.05)
Temporary Power Supply	89.34 (0.37)	114.51 (0.40)	140.66 (0.47)	141.59 (0.44)	140.91 (0.42)
Sub Total - LT Category	17641.21 (73.16)	20984.15 (73.75)	21381.24 (71.34)	22854.37 (70.94)	23837.13 (70.77)
Public Water Supply and Sewerage Pumping	917.31 (3.80)	948.88 (3.33)	954.13 (3.18)	974.51 (3.02)	1044.16 (3.10)
HT Industrial	4104.81 (17.02)	4607.39 (16.19)	5290.4 (17.65)	5697.34 (17.69)	5932.03 (17.61)
HT Commercial	1258.92 (5.22)	1683.05 (5.91)	2091.3 (6.68)	2397.29 (7.44)	2534.77 (7.52)
Irrigation and Agricultural Farms, LIS, Govt.Horti.Farms	46.98 (0.19)	80.01 (0.28)	107.89 (0.36)	143.85 (0.45)	160.97 (0.48)
Private Residential Apartments	131.60 (0.54)	150.59 (0.53)	145.27 (0.48)	122.86 (0.38)	51.78 (0.15)
KPC installations / MUSS	8.07	-	-	23.55	106
HT others(Hukkeri Society, Temp, Railway Traction and Others)	3.83	-	-	-	13.77
Sub Total - HT Category	6471.51 (26.84)	7469.92 (26.25)	8588.99 (28.66)	9359.41 (29.05)	9843.48 (29.22)

Total (HT + LT)	24112.72	28454.06	29970.23	32213.77	33680.61
Inter ESCOMS Sales				11.61	9.87
Wheeling charges			17.71		
Sub total	0.00	0	17.71	11.61	9.87
Grand Total	24112.72	28454.06	29987.94	32225.38	33690.48

*Provisional; Note: Figures in parenthesis are percentage

Source: KPTCL

Revenue Earned by Consumer Categories 2005-06 to 2009-10 Annexure 3.c

Consumer Categories	Revenue (in ₹ Crores)				
	2005-06	2006-07	2007-08	2008-09	2009-10*
Bhagyajyothi/Kutirjyothi	37.28 (0.49)	86.61 (1.03)	31.93 (0.34)	75.5 (0.73)	194.73 (1.62)
Domestic Lighting / AEH	1615.70 (21.39)	1772.2 (21.10)	1932.98 (20.55)	2066.02 (20.06)	2315.68 (19.31)
LT Commercial	717.81 (9.50)	823.73 (9.81)	938.65 (9.98)	1034.17 (10.04)	1211.42 (10.10)
Irrigation Pump Sets (10HP and below)	578.74 (7.66)	652.68 (7.77)	767.73 (8.16)	833.57 (8.09)	1586.04 (13.23)
Irrigation Pump Sets (>10HP)	7.34 (0.10)	2.58 (0.03)	3.1 (0.03)	11.08 (0.11)	3.89 (0.03)
Private Horticultural Nurseries	11.94 (0.16)	0.7 (0.01)	2.26 (0.02)	3.45 (0.03)	5.05 (0.04)
LT Industrial	705.57 (9.34)	671.45 (7.99)	745.65 (7.93)	730.14 (7.09)	765.3 (6.38)
Water Supply - Rural	225.77 (2.99)	278.07 (3.31)	261.24 (2.78)	391.52 (3.80)	-
Public Lighting - Rural	199.36 (2.64)	185.02 (2.20)	81.12 (0.86)	145.4 (1.41)	-
Water Supply - Urban	48.62 (0.64)	49.14 (0.58)	53.08 (0.56)	4.4 (0.04)	401.1 (3.54)
Public Lighting - urban	7.35 (0.10)	5.34 (0.06)	114.12 (1.21)	9.13 (0.09)	311.26 (2.59)
Temporary Power Supply	78.47 (1.04)	100.66 (1.20)	118.15 (1.26)	125.36 (1.22)	131.39 (1.09)
Sub Total - LT Category	4233.96 (56.05)	4632.61 (55.17)	5050.02 (53.69)	5429.74 (52.71)	6925.86 (57.76)
Public Water Supply and Sewerage Pumping	332.51 (4.40)	342.29 (4.08)	344.54 (3.66)	356.23 (3.46)	389.49 (3.29)
HT Industrial	1915.94 (25.36)	2154.06 (25.65)	2475.9 (26.32)	2718.68 (26.39)	2910.77 (24.28)
HT Commercial	751.44 (9.95)	1003.65 (11.95)	1241.95 (13.20)	1388.48 (13.48)	1578.94 (13.17)
Irrigation and Agricultural Farms, LIS, Govt.Horti.Farms	16.31 (0.21)	18.88 (0.22)	19.37 (0.20)	18.46 (0.18)	25.12 (0.21)
Private Residential Apartments	46.94 (0.62)	51.15 (0.61)	54.61 (0.58)	54.2 (0.53)	61.82 (0.51)
KPC installations / MUSS	2.87	2.89	-	-	14.76
Sub Total - HT Category	3066.01 (40.59)	3572.92 (42.55)	4136.36 (43.98)	4536.05 (44.04)	4980.9 (41.54)

Total (HT + LT)	7299.97 (96.64)	8205.53 (97.71)	9186.38 (97.66)	9965.79 (96.76)	11906.76 (99.30)
Misc. charges from consumer	268.72	207.64	282.64	359.85	90.18
BRP - II	0.00	0		0.01	0
LESS: Withdrawal of Revenue Demand	14.86	15.63	63.08	25.92	6.81
Total Revenue	7553.83	8397.54	9405.94	10299.73	11990.13

*Provisional; Note: Figures in parenthesis are percentage

Source: KPTCL

Consumer Categories	Realization Rate (in ₹ /KWh)				
	2005-06	2006-07	2007-08	2008-09	2009-10*
Bhagyajyothi/ Kutirjyothi	1.38	2.52	0.86	1.79	4.29
Domestic Lighting / AEH	3.35	3.33	3.33	3.27	3.43
LT Commercial	6.47	6.42	6.44	6.39	6.67
Irrigation Pump Sets (10HP and below)	0.67	0.59	0.72	0.73	1.37
Irrigation Pump Sets (>10HP)	7.41	1.34	1.49	6.16	2.00
Private Horticultural Nurseries	10.44	1.12	2.44	4.91	2.42
WLT Industrial	4.66	4.27	4.62	4.65	4.85
Water Supply - Rural	3.99	4.73	4.02	4.73	-
Public Lighting - Rural	4.55	3.09	3.53	2.76	-
Water Supply - Urban	5.03	4.12	4.23	3.36	5.09
Public Lighting - urban	0.68	1.56	4.07	3.52	4.51
Temporary Power Supply	8.78	8.79	8.40	8.85	9.32
Sub Total - LT Category	2.40	2.21	2.36	2.38	2.91
Public Water Supply and Sewerage Pumping	3.62	3.61	3.61	3.66	3.73
HT Industrial	4.67	4.68	4.68	4.77	4.91
HT Commercial	5.97	5.96	5.94	5.79	6.23
Irrigation and Agricultural Farms, LIS, Govt. Horticulture Farms	3.47	2.36	1.80	1.28	1.56
Private Residential Apartments	3.57	3.40	3.76	4.41	11.94
Sub Total - HT Category	4.74	4.78	4.82	4.85	5.06
Overall Average	3.03	2.88	3.07	3.09	3.54

*Provisional

Source: Estimated from KPTCL data

Annexure 3.e

Comparison of ration cards with number of households based on projected population

District	Projected Population 2009 in 00s	No. of Households	Number of Cards issued (March 2009)						%age of total cards to households
			AAY	BPL	Nemmadi	Total BPL	APL	Total	
Bagalkot	18973	474325	47660	185296	131686	316982	176882	541524	114.17
Bangalore Urban	83349	2083725	34667	470576	115235	585811	1028708	1649186	79.15
Bangalore Rural	20791	519775	35729	280585	129054	409639	158621	603989	116.20
Belgaum	47989	1199725	96677	487001	209263	696264	580742	1373683	114.50
Bellary	23896	597400	66486	223231	191680	414911	177595	658992	110.31
Bidar	17430	435750	45175	167445	129989	297434	189680	532289	122.15
Bijapur	20601	515025	56556	204782	142201	346983	172745	576284	111.89
Chamaraja-nagar	10377	259425	36075	157829	54284	212113	72296	320484	123.54
Chickmag-alur	12548	313700	23537	161531	50595	212126	82939	318602	101.56
Chitradurga	17069	426725	47378	238202	69166	307368	88639	443385	103.90
Dakshina Kannada	21431	535775	15881	158633	0	158633	205400	379914	70.91
Davanagere	20036	500900	53933	252399	123006	375405	138551	567889	113.37
Dharwad	18181	454525	32809	205009	144942	349951	149896	532656	117.19
Gadag	10727	268175	31737	113121	70989	184110	93391	309238	115.31
Gulbarga	36717	917925	104530	396078	213532	609610	296979	1011119	110.15
Hassan	18538	463450	25098	333337	77475	410812	125825	561735	121.21
Haveri	16100	402500	50536	198554	89189	287743	100387	438666	108.99
Kodagu	6035	150875	6128	80852	18947	99799	63103	169030	112.03
Kolar	28261	706525	65916	382000	147732	529732	194255	789903	111.80
Koppal	14295	357375	42062	136749	92900	229649	95100	366811	102.64
Mandya	18655	466375	37209	295357	97706	393063	178699	608971	130.58
Mysore	29707	742675	51104	402607	132598	535205	174629	760938	102.46
Raichur	19776	494400	60279	197350	118862	316212	153096	529587	107.12
Shimoga	18160	454000	41463	225907	73242	299149	151757	492369	108.45
Tumkur	28453	711325	56307	393854	147779	541633	194832	792772	111.45
Udupi	11816	295400	17873	93427	6184	99611	120341	237825	80.51
Uttara Kannada	14824	370600	16895	183084	66125	249209	132684	398788	107.61
Total State	604735	15118375	1199700	6624796	2844361	9469157	5297772	15966629	105.61
			7.5	41.42	17.81	59.31	33.18		

Source: C&AG Audit Report (Civil) for the Year ended March 2009

Annexure 3.f

District wise Industrial Units, Investments and Employments under 2001-06 and 2006-11 policies/packages

Districts	Industrial Units (in numbers)				Investment (₹ in lakhs)		Employment (numbers)			
	2001-2006	%	2006-2011	%	2006-2011	%	2001-2006	%	2006-2011	%
Bangalore	10054	18.90	13498	17.75	193265.28	39.59	67685	28.43	177045	36.16
Belgaum	3341	6.28	6141	8.07	23304.91	4.77	14054	5.90	28928	5.91
D.Kannada	3043	5.72	4687	6.16	19399.67	3.97	9382	3.94	20589	4.21
Dharwad	3067	5.76	3617	4.76	23528.56	4.82	12680	5.33	23065	4.71
Mysore	2840	5.34	3613	4.75	25349.58	5.19	9409	3.95	22124	4.52
Sub Total	22345	42.00	31556	41.49	284848.00	58.35	113210	47.54	271751	55.51
Bagalkot	1255	2.36	1917	2.52	8719.55	1.79	5334	2.24	9522	1.94
Bellary	2064	3.88	3641	4.79	28775.61	5.89	9552	4.01	21630	4.42
Bidar	899	1.69	432	0.57	3029.86	0.62	3980	1.67	2928	0.60
Bijapur	1555	2.92	2286	3.01	4384.92	0.90	6361	2.67	6542	1.34
CH Nagar	776	1.46	1087	1.43	2350.97	0.48	3914	1.64	5081	1.04
Chikkaballapur	0	0.00	955	1.26	3176.99	0.65	0	0.00	5053	1.03
Chikkmangalur	1398	2.63	2499	3.29	4621.53	0.95	5511	2.31	8427	1.72
Chitradurga	1535	2.89	2128	2.80	4149.70	0.85	5504	2.31	6901	1.41
Davangere	1472	2.77	2041	2.68	6467.81	1.32	4787	2.01	7437	1.52
Gadag	949	1.78	1137	1.49	1705.63	0.35	3424	1.44	5190	1.06
Gulbarga	2595	4.88	3578	4.70	13467.73	2.76	9175	3.85	12016	2.45
Hassan	1955	3.67	2352	3.09	5311.64	1.09	6821	2.86	8276	1.69
Haveri	1125	2.11	1791	2.35	6632.69	1.36	4008	1.68	6957	1.42
Kodagu	382	0.72	422	0.55	1341.94	0.27	1509	0.63	2525	0.52
Kolar	2063	3.88	1620	2.13	14831.01	3.04	10575	4.44	11020	2.25
Koppal	831	1.56	1575	2.07	13534.94	2.77	4571	1.92	8443	1.72
Mandya	1318	2.48	1762	2.32	6557.25	1.34	5027	2.11	8242	1.68
Raichur	1246	2.34	1437	1.89	8756.93	1.79	4499	1.89	5449	1.11
Ramnagar	0	0.00	1292	1.70	11887.54	2.44	0	0.00	10236	2.09
Shimoga	1922	3.61	3183	4.19	8195.08	1.68	6388	2.68	17392	3.55
Tumkur	2685	5.05	3385	4.45	23010.21	4.71	10112	4.25	20742	4.24
Udupi	1283	2.41	1850	2.43	16411.47	3.36	7779	3.27	17682	3.61
U.Kannada	1549	2.91	2054	2.70	5627.63	1.15	6075	2.55	9846	2.01
Yadagir	0	0.00	77	0.10	358.32	0.07	0	0.00	294	0.06
TOTAL	53202	100.00	76057	100.00	488154.95	100.00	238116	100.00	489582	100.00

Source: Department of industry and commerce, Government of Karnataka.

Year	Houses Constructed under Social Housing Schemes					House Sites		
	Rural Ashraya	Rural Ambedkar	Urban Ashraya	IAY	Total	Rural	Urban	Total
2000-01	71794 (49.20)	17619 (12.08)	28702 (19.67)	27785 (19.04)	145900	13039 (43.55)	16901 (56.45)	29940
2001-02	136886 (60.37)	26489 (11.68)	34274 (15.12)	29096 (13.83)	226745	19784 (52.13)	18167 (47.87)	37951
2002-03	115267 (63.12)	18415 (10.08)	20020 (10.96)	28910 (15.83)	182612	21397 (93.34)	1526 (6.66)	22923
2003-04	108747 (61.48)	16274 (9.20)	17966 (10.16)	33886 (19.16)	176873	7392 (65.88)	3829 (34.12)	11221
2004-05	87382 (61.34)	9054 (6.36)	11905 (8.36)	34104 (23.94)	142445	4762 (66.69)	2379 (33.31)	7141
2005-06	78005 (53.86)	6507 (4.49)	8961 (6.19)	51339 (35.45)	144812	6814 (68.32)	3160 (31.68)	9974
2006-07	113676 (65.45)	6736 (3.88)	5488 (3.16)	47779 (27.51)	173679	2280 (39.00)	3566 (61.00)	5846
2007-08	227858 (81.20)	11628 (4.14)	1452 (0.52)	39656 (14.13)	280594	1191 (36.57)	2066 (63.43)	3257
2008-09	192858 (65.58)	13430 (4.57)	2317 (0.79)	85459 (29.06)	294064	1007 (46.19)	1173 (53.81)	2180
2009-10	157217 (47.21)	15876 (4.77)	4135 (1.24)	155744 (46.77)	332972	34765 (93.24)	2519 (6.76)	37284
2010-11**	33551 (41.18)	2234 (2.74)	628 (0.77)	45056 (55.30)	81469	1384 (80.05)	345 (19.95)	1729
Grand Total	1323241	144262	135848	578814	2182165	113815	55631	169446

Note: IAY was implemented by the RDPR prior to 2004-05, data relating to this period was collected from RDPR records. (Figures in parenthesis are percentage to total)
** 2010-11 data is only up to December 2010
Source: Rajiv Gandhi Housing Corporation, 2010

Division	Nodal office for departments	Other responsibilities
Project Formulation Division	a. Agriculture, Watershed Development and Horticulture; b. Animal Husbandry, Dairy Development and Fisheries; c. Forest, Ecology and Environment; d. Revenue; e. Public Enterprises; and f. Department of Personnel and Administrative Reforms	
Manpower and Employment Division	g. Health and Family Welfare; h. Medical Education; i. Primary and Secondary Education; j. Higher Education; k. Labour; l. Kannada & Culture and Information; m. Tourism; n. Youth Services and Sports; o. Science and Technology.	Monitoring, collection of data and information on employment scenario of the State
Perspective Planning Division	p. Water Resources q. Energy r. Transport s. PWD t. Law	Analyze, assess, estimate and make projection relating to medium and long term development plans to ensure that the quantitative dimensions of the plans are consistent between sectors and between various macro economic aggregates.
Plan, Monitoring and Information Division		Keep track of progress in the implementation of the planned developmental process of the State. The activities of the division include (i) Karnataka Development Program (including Twenty Point Program) (TPP) reviews; (ii) Monthly Program Implementation Calendar (MPIC); (iii) Review regarding release of funds for Centrally Sponsored and Central Sector Schemes; (iv) preparation of monthly progress reports on the Revised Twenty Point Program, 2006.
District Planning Division	u. Rural Development and Panchayat Raj; v. Housing, Urban Development; w. Home Departments;	(a) guides the planning units of Zilla Panchayats (ZP) in the formulation of District Sector Plans, (b) Co-ordinates activities of ZP plan programs at the state level, (c) Determines the plan size of the District sector and allocate the outlays among ZPs on the basis of prescribed criteria, (d) Earmarks outlays for programs and integrates ZP Plan at the state level, (e) Prepares ZP budget link document depicting District-wise, sector-wise and scheme-wise outlays.

Plan, Finance and Resources Division	x. Commerce and Industries; y. Cooperation; z. Infrastructure Development; aa. Information Technology & Bio-Technology.	(a) Coordinate preparation of Annual Plans and Five Year Plans. (b) Participate in resource meeting with Planning Commission and Determination of Plan Size in consultation with FD. (c) Workout inter-sectoral allocations based on resource possibilities after assessment of requirements for external aided projects, IEBR and earmarking. (d) Communication of outlays to field departments. (e) Submission of Plans to Planning Commission for approval. (f) Organise meeting between Deputy Chairman, Planning Commission and Chief Minister to finalise Plan. (g) Organise Working Group Discussions between State Government Officers and Planning Commission Member / Advisers. (h) Attend to all matters relating to National Development Council meetings.
Evaluation Division		Undertake evaluation of selected programs /schemes under implementation by outsourcing them to recognized Universities / Institutes / Centres, as per the requirement of the various Divisions/Departments of the State Government.
Human Development Division		Collecting data on identified Poverty and Human Development Indicators originating from various official sources like Census, Central Statistical Organization, International Institute for Population Science, National Family Health Survey, National Sample Survey Organization, Planning Commission, National and State level special surveys and departmental sources on a regular basis. Coordinating the implementation of the UNDP-GoI Assisted Project of strengthening state plans for Human Development in Karnataka and District Human Development Reports.

1. Fostering the right climate for performance information: This is the culture change issue. Performance information has not historically played a large role in how the organizations (government) manage themselves. And these organizations have been able to carry on without this information, so why change? This underscores the need for strong leadership; the need for the right incentives to gather and use performance information; the importance of a learning culture and the capacity to adapt; and valuing evidence-based and especially outcome information.

2. Setting realistic expectations: The long history of efforts at introducing performance information to managing and budgeting has been fraught with setbacks. And often these have to do with unrealistic expectations set out for or assumed for performance information. Performance information has been cast by some as a panacea for improving public management and budgeting: users of performance information will have at their finger tips everything they need to know to manage, budget or hold to account. Such is not and will not be the case.

3. A long-term commitment: This challenge has already been identified as one of the overriding issues. Integrating performance information into management and budgeting needs ongoing commitment over many years. It is not a short term, 1, 2 or 3-year initiative. Many organizations and governments have difficulty maintaining momentum over the long term. A long term commitment also implies the need for resources over the long term. Developing performance information is not cost free.

4. Setting performance expectations for outcomes: Essential to integrating performance information into managing and budgeting is the need for organizations to establish reasonable expectations about what levels of performance are expected to be achieved. This is a serious challenge for a number of reasons: It directly raises the question of accountability for performance. Outcomes are by definition results over which organization do not have complete control; setting targets can be seen as dangerous. It may not be known what reasonable levels ought to be. It may not clear whether the expectations to be set are predictions of future levels which can be achieved - predictive targets - or are - stretch targets - levels to be aimed for to inspire better performance. Setting acceptable expectations may require dialogue with the beneficiaries and/or budget officials.

5. Avoiding distorting behaviour: The classic problem in using performance measures is that by selecting a few specific indicators with accompanying targets, managers and staff focus on improving those numbers, perhaps to the detriment of what the programme is actually trying to achieve. This is a more significant danger when the measures are outputs or lower-level outcomes. The experience with performance measures is replete with examples of this kind of behaviour distortions.

6. Accountability for outcomes: People are generally comfortable with being accountable for things they can control. Thus, managers can see themselves as being accountable for the outputs produced by the activities they control. When the focus turns to outcomes, there is

considerably less comfort, since the outcomes to be achieved are affected by many factors not under the control of the manager: social and economic trends, exogenous events, and other programmes. It may not be clear just what accountability for outcomes can sensibly mean. If outputs are not delivered, one can rightly point to the manager responsible and take corrective action. If outcomes do not occur, and the same action is automatically taken, few in the future will be willing to commit to outcomes. A somewhat different approach to accountability in this case is required. There is a second aspect to this challenge that again arises when outcomes are the focus. Many outcomes of interest to governments involve the efforts of several programmes and often several ministries. The outcomes are shared. Can the accountability for those outcomes also be shared? If so, how?

Technical challenges

7. Measurement: The issue of how to measure the outputs and outcomes of government programmes is often considered to be the major challenge faced when developing performance information systems. Performance information will not be used unless the 'right' data and information are collected. Challenges include measuring many of the outcomes of interest to governments, developing the needed measurement skills, and making appropriate use of evaluations.

8. Selectivity: While in some quarters there may be concerns about a lack of performance information, an even more common problem has been the danger of information overload. For any given programme, a huge array of possible measures can be created, easily swamping the ability of users to deal with the information. Quite a few performance measurement systems have collapsed under the weight of too much information. Most now realize the need for selectivity in what information is gathered and used. However, selectivity is easier to talk about than to achieve. Selectivity means that some information will not be collected, information that someone somewhere may want. How to deal with the information overload challenge is not completely clear.

9. Linking financial and performance information: A key aim of integrating performance information into management and budgeting is to be able to determine the costs of the results of government programmes. For outputs, this relatively straightforward, since there is a direct link- for the most part - between the costs of inputs and the direct outputs produced. But even for outputs there may often be a challenge since financial systems are not always aligned with outputs. But for outcomes, especially higher-level outcomes, the challenge is not only technical, but also conceptual. Given that outputs and lower level outcomes can contribute to a number of outcomes sought, what does the 'cost' of an outcome mean? This issue has not been adequately addressed.

10. Attributing outcomes to actions: Measuring outcomes is one challenge. Determining the extent to which the programme contributed to those outcomes is quite another issue, and rather more of a challenge. The problem is that there are often a number of other factors in addition to the programme that have contributed to the observed outcomes. Indeed, the outcomes may have occurred without the programme. But to be able to make any assessment about the worth of spending taxpayers' money on the programme, some idea of how the programme has affected the desired outcomes is needed.

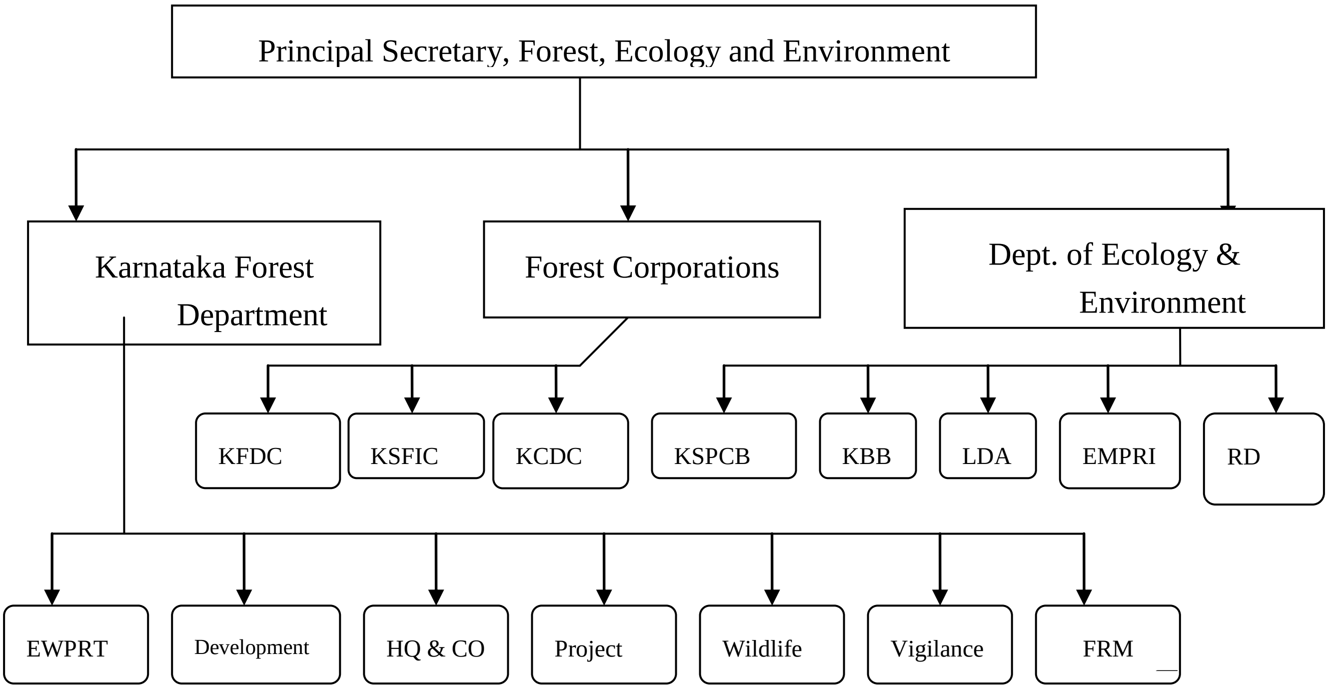
11. Quality of data and information: In discussing the measurement challenge, it was argued that measurement in the public sector will never be perfect. It follows that care needs to be paid to the quality of data and information in a performance measurement system. And given the contested context in which performance information is used, it is quite important that it is seen as credible by those who use it. Quality touches on a range of matters, such as accuracy, relevance and timeliness. It is not an absolute concept. Further, better quality costs more resources. What is usually sought is data and information 'fit for purpose'; that is good enough for the intended purpose. Ensuring this is the challenge.

12. Credibly reporting performance: With the proliferation of data and information that is possible and the variety of interests of users, how best to report performance information is not straightforward. This is particularly the case when outcomes are being reported on, since there is often uncertainty surrounding the measurement of the outcomes and the extent to which the outcomes are linked to the programme in question. National Audit Offices reporting on performance information being provided to parliaments are frequently critical. And there are no widely recognized standards for such reporting; each jurisdiction publishes their own.

Source: OECD (Gov/PGC/SBO (2205)3

Annexure 6.a

Organizational Structure of Departments of Forest, Ecology and Environment



Source: Karnataka Forest Department

Abbreviations: KFDC (Karnataka Forest Development Corporation); KSFIC (Karnataka State Forest Industries Corporation); KCDC (Karnataka Cashew Development Corporation); KSPCB (Karnataka State Pollution Control Board); KBB (Karnataka Biodiversity Board); LDA (Lake Development Authority); EMPRI (Environmental Management Policy Research Institute); RD Env. (Regional Development - Environment); EWPRT (Evaluation, Working Plan, Research and Training); HQ&CO (Head Quarter & Co-ordination); FRM (Forest Resource Management). Wings of Karnataka Forest Department; EWPRT :Evaluation, working plan, Research & Training; Development: NREGA, Bamboo Mission Head Quarters & Co-ordination: Land Records, Personnel, Legal cell, CAMPA, Forest Conservation, Budget & Audit, Projects : External JBIC, Wildlife : Project Tiger, Project Elephant, IDWH, Vigilance: Poaching, Smuggling, forest protection, Forest Resource Management: Non forest activities, etc.

Annexure 6.b

Source wise Revenue of the Forest Department (₹ in Crore)

Sl No	Source of Revenue	2007-08	2008-09	2009-10
1	Timber	68.16	64.28	70.34
2	Firewood and Charcoal	12.92	13.54	12.73
3	Bamboos	3.91	4.60	3.87
4	Receipts from Sandalwood	5.40	2.97	2.26
5	Minor Forest Produce	1.65	2.44	1.41
6	Receipts from Sanctuaries	4.31	2.64	2.02
7	Interest on belated payment of Govt. dues	0.08	0.07	0.03
8	Fines and Forfeitures	1.16	1.09	0.98
9	Receipts for Compensatory Plantations	0.03	0.00	0.02
10	Other Miscellaneous Receipts	32.99	34.56	102.49
11	Refund of Revenue	0.10	0.12	0.11
12	Sub Total (Revenue of Forest Department)	130.71	126.31	196.26
13	Forest Development Tax	11.40	11.88	271.47
14	Total	142.11	138.19	467.73

Source: Karnataka Forest Department

Budgetary Provisions of the Forest Department for the year 2010-11

Head of Account	Budget provision (₹in lakhs)		
	Plan	Non-Plan	Total
Direction and administration	-	15270	15270
Direction and administration	-	-	
Education and Training	250	323	573
Research	84	563	647
Survey and utilization of forest resources	-	788	788
Communication and buildings	-	63	63
Forest conservation, development and regeneration	1835	3764	5598
Social & Farm forestry	9200	5000	14200
Forest produce	-	2596	2596
Aid to local bodies (Zilla Panchayats / Gram Panchayats), Corporations etc.	2212	3494	5706
Tribal Area sub plan	183	-	183
Transfers to Reserve funds	-	9000	9000
Other Expenditure	614	52	666
Deduct amount net from Karnataka Forest Development Fund	-	-5015	-5015
Sub Total (Forestry)	14378	35897	50274
Wildlife	3950	3226	7176
Zoological park		140	140
Transfers of Receipts from Sanctuaries to PAM Fund		390	390
Deduct amount net from PAM Fund		-390	-390
Sub Total (Wildlife)	3950	3366	7316
Total - Forestry & wildlife	18328	39262	57590
Capital Outlay	399		399
Grand Total	18727	39262	57990

Source: Karnataka Forest Department

Details of Schemes and objectives in the Forest Department

Sl.No	Schemes	Objectives
State Sector		
1	Computerization of Forest Department	Development of infrastructure for administration
2	Cultivation of sandal wood	The object of this scheme is to maintain and protect the sandalwood plantations and natural sandal bearing areas in traditional sandal areas of Shimoga, Dharwar, Haveri, Hassan and Bangalore districts. Works taken up include chain link mesh fencing, watch and ward, soil working and cultural operations enriching the older plantations, etc.,
3	Development of Bio-fuel Plantation	Biofuel plantation is brought up to reduce the fossil fuel consumption and the impacts of fossil fuels. Another aim is to mitigate the climate change effects at the global level.
4	Development of Degraded Forest	Under this scheme, degraded forests are rejuvenated through afforestation and various other measures like protection, regeneration and soil and water conservation. Wherever there is enough root stock, such areas are protected from biotic pressures thereby encouraging natural regeneration.
5	Eco-tourism	It is proposed to develop basic amenities for camping and eco-tourism in and around forest areas having tourism potential.
6	Forest Protection, Regeneration & Cultural Operation	Investment on assets to protect forests. This scheme provides for purchase of arms and ammunitions, wireless sets and vehicles required for protection of forests and for controlling smuggling of forest produces, poaching of wild animals. It also provides for the establishment of protection camps for controlling smuggling of forest produce and encroachment of forestlands (http://planning.kar.nic.in/sites/planning.kar.nic.in/files/AnnualPlan2007-08/VolumeI/CHAPTER13.pdf, p 153).
7	Forest Research	The Research wing has taken up various research activities covering the entire State under Plan and Non-plan and KSFMBC schemes. Maintenance of older Research Plantations have also been taken up under 12th Finance Commission, Forest Research Plan and Non-plan. Other activities include the establishment of medicinal plant gardens and the nursery techniques for various species have been standardized
8	Greening of urban areas	Under this scheme, it is envisaged to plant flowering and fruit bearing trees, develop tree parks, wood lots and avenue plantations in towns and cities of the State. Seedlings are also supplied to the residents of urban areas.
9	Kudremukh National Park for Rehabilitation	Relocation of residents of Kudremukh National Park to peripheral areas and also providing shelter and employment.

10	Land & buildings	The field level staff like forester, forest guards and forest watchers have to discharge their duties in interior forest areas and have to stay there, for satisfactory discharge of their duties. The departmental staff does not get private accommodation in rural areas. The construction of staff quarters and office buildings has been taken up under this scheme.
11	Maintenance of Medicinal plant Conservation area	Main objectives are survey, conservation, research and development of medicinal plants in Karnataka State; to promote cultivation, storage and facilitate marketing of medicinal plants; to collect data on medicinal plants in the state and promote the use of medicinal plants.
12	Nature Conservation	Conservation and preservation of natural resources
13	Raising of Seedlings for public Distribution	It is envisaged to raise seedlings required for distribution and sale to public under this scheme. The Seedlings thus raised will be supplied to farmers at subsidised rates to encourage farm forestry and involve them in the development of forests. Under this scheme, seedlings of flowering and fruit yielding species, required by people, are raised.
14	Samrudha Hasiru Grama Yojane	Under this scheme, gobar gas plants are introduced to reduce the demand for fossil fuels. Trainings are provided to Village Forest Committees (VFC) for maintaining and conserving the local forest; and also growing a plantation to increase the greenery.
15	Special Component Plan	The scheme has been introduced to uplift the S.C. S.T. families by planting fruit bearing seedlings on their lands and also in localities of SC-STs in urban areas.
16	Tribal sub Plan	The scheme has been introduced to uplift the tribal artisans by providing bamboos/canes for their livelihood.
17	Western Ghats task force	Western Ghats Task Force has been created for advising the Government on protection and various other issues concerning the Western Ghats of Karnataka. The Principal Chief Conservator of Forests (Head of Forest Force) is the convener of the Task Force. The task force is playing an important role in creating awareness among the people regarding Forestry & environment by organizing workshops & symposia at the Divisional level besides sponsoring various studies. It also has initiated measures to identify and recognize the people who have made their contributions towards the protection and conservation of the forest and environment.
18	Working plan organization	The working plans of the Forest department are entrusted with the task of preparing scientific working plans and monitoring the implementation of working plans. The process of revision of 39 Forest Divisions has been started
19	XII Finance commission grants for preservation of forest wealth	Utilization of 12th Finance Commission grants
20	Devara kadu	Conservation and development of sacred groves in Karnataka
Externally Aided Project		
1	Karnataka Sustainable Forest Management and Biodiversity Conservation (KSFMBC)	The main activities of the project include afforestation, soil conservation and moisture conservation, farm forestry, biodiversity conservation, Joint Forest Planning and management by forming Village Forest Committees, habitat improvement in protected areas, restoration of mangroves in coastal regions, research, training infrastructure development etc.

Centrally Sponsored Scheme		
1	Conservation and Management of Mangroves	The main objective of the scheme is to control degradation and soil erosion in the coastal areas. Under this scheme, activities such as raising of mangrove plantations, maintenance of older plantations, creating awareness, training and publicity are being taken up.
2	Development of Wildlife sanctuaries and national park	Conservation and protection of both flora and fauna. Identification conservation of both existing and endangered species.
3	Integrated Forest Protection	Collection and tendering of minor forest produce to lamp societies in Karnataka.
4	Project Tiger	Main objective is conservation of Tigers
5	Utilization of CAMPA	Implementation of afforestation programmes for developing forest areas. Forest land given to non forest activities will be taken up for afforestation programmes; and also raising of compensatory forest.
Central Plan Schemes		
1	Nilgiris Biosphere Reserve	Objectives of Nilgiris biosphere reserve are Eco-development activities, Strategy to reduce the pressure of people on the park, Development of Conservation Plans and Social Welfare activities.
2	Project Elephant	The Government of Karnataka has declared 6724.87 Sq. Kms. of area belonging to Bangalore Urban, Bangalore Rural, Chamarajanagar, Mandya, Mysore, Kodagu and Hassan Districts as Mysore Elephant Reserve under the Centrally Sponsored Scheme Project Elephant.
District Sector (Zilla Panchayat)		
1	Buildings - Zilla Panchayat	Under this scheme, 62 office buildings belonging to social forestry division have been taken up for maintenance.
2	Special Development plan	The main objective of the scheme is to reduce the regional imbalances between forward and backward talukas by providing employment opportunities in the forestry sector.
3	Vanasamvardhana Yojane - Gram Panchayat	This scheme is being implemented in all the 27 districts of the state, for afforestation, restoration of ecological balance and augmentation of the forest cover by private and public participation. In the current year, the scheme is being implemented through Gram Panchayats of respective Zilla Panchayats.

Source : Karnataka forest Department

Annexure 6.e

Details of Schemes and objectives in the Department of Ecology and Environment

Sl.no	Name of the scheme	Budget allocation for 2010-2011 (₹ in Lakhs)	Objective of the Scheme
1	Environment Research, Education and Innovative projects 101 Grant in Aid	30	1. Extension and Training programmes 2. Research and innovative projects 3. Preparation of State of Environment Report 4. Environmental Awards
2	Lake Development Authority	386	1. Administrative expenses of LDA 2. Lake Development activities(Surveying, preparing of DPR & other allied activities
3	Pollution Management 200 Maintenance	20	1. Creating awareness on pollution Control Measures 2. Providing Financial Assistance for the Establishment of common effluent treatment plant (CETP) as per GOI guidelines
4	Coastal Management	90	Administrative expenses of the offices of Regional Directors at Mangalore, Udupi, Karwar for Coastal Zone Regulation activities
5	Protection of Bio-diversity	188	1. Meeting the administrative expenses of the Karnataka Bio-diversity Board 2. Bio-diversity Conservation activities (BMC, PBR & awareness program)
6	Environmental Jurisprudence 059 other Expenditure	30	Administrative expenses of the Karnataka Appellate Authority
7	Strengthening of Dept of Ecology & Environment	51	Administrative expenses of the offices of the regional Director at (Env) Bellary, Gulbarga, Belgaum
8	Eco Clubs, Other expenditure	25	Supporting Eco Clubs through EMPRI
9	Eco Friendly & Conservation Schemes	25	Funding Awareness and Education Programmes on conservation of ecology and environment
		845	

	Centrally Sponsored Schemes		
1	National Lake Conservation Programme	State : 155	Development of Amanikere of Tumkur District
		Central : 362	Gouramma Homballamma Lake of Magadi
		Total : 517	
		70 % GoI	
		30% GoK	
	Total:		
	A: State - 1000 lakhs		
	B: Central - 362 lakhs	1362 lakhs	LDA

Source: Department of Ecology and Environment

Annexure 6.f

Abstract of approved State CAMPA Plan outlay for 2010-11.

No	Particulars	Physical (Ha/Nos)	Financial (₹ in lakhs)
1	Project Specific Activities	3493.57 Ha	1324
2	Consolidation and Protection of Forests	954.71 Km	457
3	Conservation and Regeneration of Forests	8909 ha	2539
4	Wildlife Protection & Management	1133 Km	750
5	Infrastructure Development	679 Nos	1220
6	Forest Produce Saving devices & other activities		25
7	Monitoring and Evaluation		107
	Total		6423

Source : Annual Plan of Operation for Utilization of State CAMPA funds, Karnataka Forest Department.

Annexure 6.g

Staffing Pattern of the Karnataka Forest Department from 1981-82 to 2009-2010

Year	Sanctioned Positions	Actual Positions	Vacant Positions	Percentage of actually filled positions to Sanctioned positions
1981-82	10433	9823	610	94.15
1982-83	10559	9104	1455	86.22
1983-84	10733	10284	449	95.82
1984-85	10878	10197	681	93.74
1986-87	12085	11122	963	92.03
1992-93	12671	10715	1956	84.56
1993-94	12850	10765	2085	83.77
1994-95	13759	11087	2672	80.58
1995-96	14131	10856	3275	76.82
1996-97	14469	10729	3740	74.15
1997-98	14483	10790	3693	74.50
1998-99	14017	10964	3053	78.22
1999-2000	13311	10149	3162	76.25
2000-01	12110	9168	2942	75.71
2001-02	12110	10183	1927	84.09
2002-03	10885	8283	2602	76.10
2003-04	10885	8283	2602	76.10
2004-05	12008	9270	2738	77.20
2005-06	12008	9270	2738	77.20
2006-07	12008	9270	2738	77.20
2007-08	12008	9270	2738	77.20
2008-09	11359	8509	2850	74.91
2009-10	10359	7778	2581	75.08

Source: Various Issues of Annual Reports, Karnataka Forest Department

Category wise Staff Strength of the Forest Department 2009-10

Sl. No.	Category of Posts	Sanctioned Strength	Working Strength	Vacant Posts
1	Principal Chief Conservator of Forests	2	2	0
2	Addl. Principal Chief Conservator of Forests	5	5	0
3	Chief Conservator of Forests	13	12	1
4	Conservator of Forests	25	24	1
5	Deputy Conservator of Forests	55	50	5
6	Deputy Conservator of Forests	42	38	4
7	Assistant Conservator of Forests	190	190	0
8	Range Forest Officer	630	625	5
9	Forester (2185+40+18 (STEP))	2243	2154	89
10	Forest Guards (3866 + 90 (STEP)	3956	3164	792
11	Assistant Director (Veterinary)	1	1	0
12	Assistant Surgeon (Veterinary)	5	4	1
13	Deputy Director Statistics	1	1	0
14	Photographer cum Artiste	2	2	0
15	Assistant Statistical Officer	7	6	1
16	Junior Engineer	2	1	1
17	Librarian	1	0	1
18	Assistant Librarian	1	1	0
19	Statistical Inspector	9	2	7
20	Physical Training Inspector	2	0	2
21	Film Project Operator	7	7	0
22	Crane Operator	2	2	0
23	Senior Driver	49	41	8
24	Driver	195	158	37
25	Police Constable	9	0	9
26	Forest Settlement Officer	3	0	3
27	Deputy Director, Forest Survey, Demarcation and Mapping	1	0	1
28	Special Tahasildar	1	0	1
29	Assistant Director, Forest Survey and Demarcation and Mapping	1	0	1
30	Superintendent (Executive) Forest Survey	8	0	8
31	First Grade Draftsman	4	4	0

32	Second Grade Draftsman	27	8	19
33	First Division Surveyors	18	6	12
34	Second Division Surveyors	61	17	44
35	Elephant Jamedar	4	4	0
36	Elephant Mahuts	71	53	18
37	Elephant Kothwals / Kawadies	81	70	11
38	Chief Accounts Officer	2	2	0
39	Accounts Superintendent	10	10	0
40	Administrative Officer	5	5	0
41	Assistant Administrative Officer	11	11	0
42	Gazetted Managers	67	67	0
43	Superintendents	172	165	7
44	First Division Assistant	553	549	4
45	Stenographers	26	26	0
46	Senior Typists	22	21	1

Source: Karnataka Forest Department

Wildlife National Parks and Sanctuaries, Karnataka

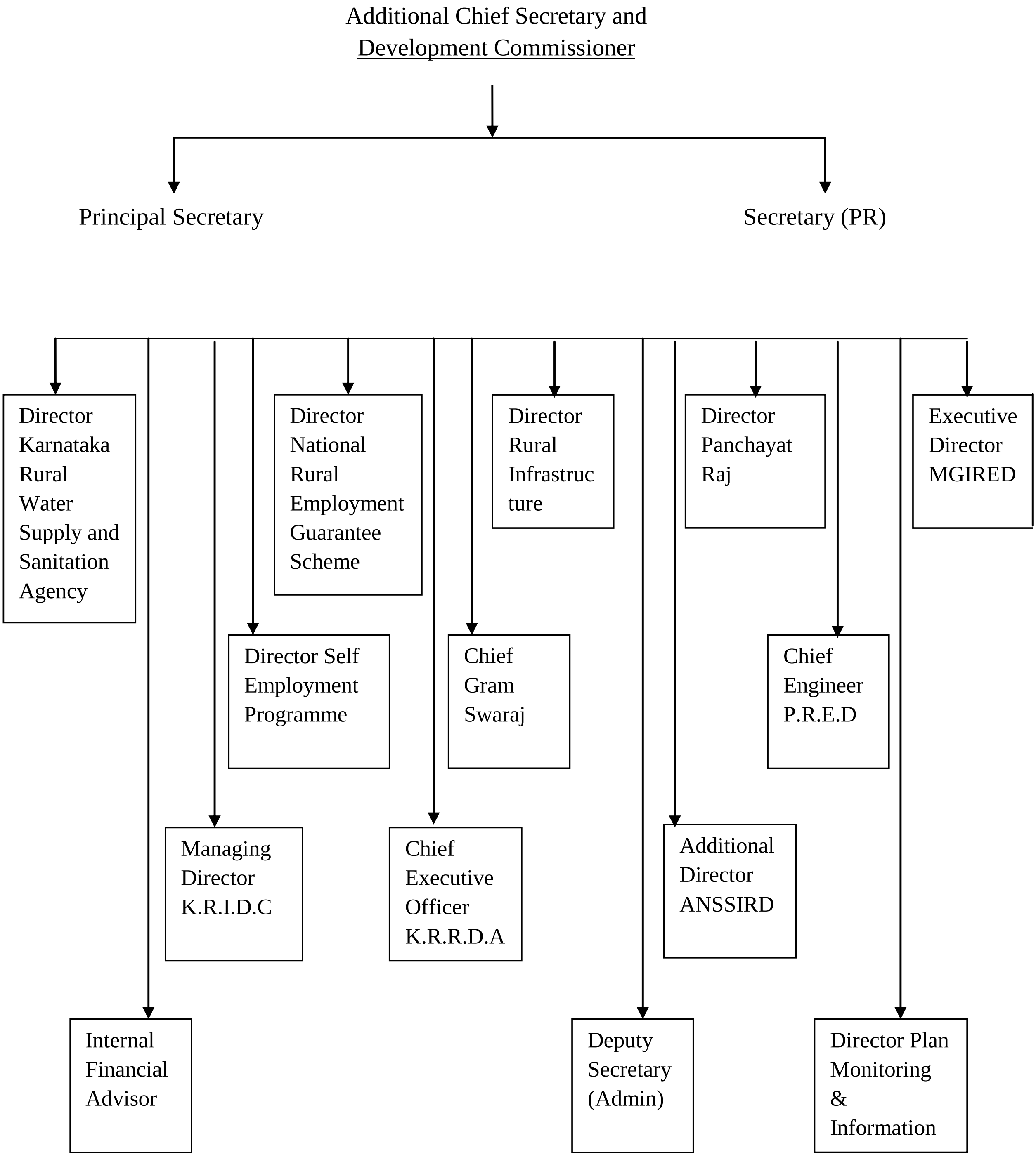
Name of National Park (NP)/ Wildlife Sanctuary (WLS)	**Year of Establish-ment**	**Area (km^2)**	**District/ Location**
Anshi NP	1987	250	Uttara Kannada
Bandipur NP	1974	874.2	Mysore, Chamarajanagar
Bannerghatta NP	1974	104.27	Bangalore
Kuduremukh NP	1987	600.32	Dakshina Kannada, Udupi, Chikmagalur
Rajiv Gandhi (Nagarahole) NP	1988	643.39	Kodagu, Mysore

Name of National Park (NP)/ Wildlife Sanctuary (WLS)	**Year of Estd.**	**Area (km^2)**	**District/ Location**
Adichunchunagiri Peacock WLS	1981	0.84	Mandya
Arabithittu WLS	1985	13.5	Mysore
Attiveri WLS	1994	2.22	Uttara Kannada
Bhadra WLS	1974	492.46	Chikmagalur,Shimoga
Biligiri Rangaswamy Temple WLS	1987	539.52	Chamarajanagar
Brahmagiri WLS	1974	181.29	Kodagu
Cauvery WLS	1987	526.96	Mysore, Bangalore, Mandya
Dandeli WLS	1987	475.01	Uttara Kannada
Daroji Bear WLS	1992	55.87	Dharwar
Ghataprabha WLS	1974	29.78	Belgaum
Gudavi WLS	1989	0.73	Shimoga
Melkote Temple WLS	1974	49.82	Mandya
Mookambika WLS	1974	247	Udipi
Nugu WLS	1974	30.32	Mysore
Pushpagiri WLS	1987	102.92	Kodagu, Dakshin Kannada
Ranebennur WLS	1974	119	Dharwad
Ranganathittu WLS	1940	0.67	Mysore
Sharavathi Valley WLS	1974	431.23	Shimoga
Shettihalli WLS	1974	395.6	Shimoga
Someshwara WLS	1974	88.4	Udipi
Talakaveri WLS	1987	105	Kodagu

Source: ENVIS (online) http://oldwww.wii.gov.in/envis/pa_database/karnataka.html

Annexure 7.a

Organisational Chart – RDPR



Source : Annual Report 2009-10, RDPR

Schemes of Rural Development and Panchayat Raj Department

SELF EMPLOYMENT PROGRAMME	RURAL WAGE EMPLOYMENT PROGRAMMES	1. SAMPOORNA GRAMMENA ROZGAR YOJANA(S.G.R.Y.)
		2. JALARAKSHANE
		3. NATIONAL RURAL EMPLOYMENT GUARANTEE ACT - KARNATAKA
	SELF EMPLOYMENT PROGRAMME:	1. SWARNA JAYANTHI GRAM SWAROZGAR YOJANA(S.G.S.Y)
	WATERSHED PROJECT PROGRAMME	1. WESTERN GHATS DEVELOPMENT PROGRAMME
	OTHER PROGRAMMES	1. NAMMA BHOOMI - NAMMA THOTA
		2. REHABILITATION OF BONDED LABOUR SCHEME
GRAMASWARAJ	GRAMASWARAJ	1. KARNATAKA PANCHAYAT STRENTHENING PROJECT
RURAL INFRASTRUCTURE	RURAL ENERGY PROGRAMMES	1. NATIONAL PROJECT ON BIOGAS DEVELOPMENT
	RURAL COMMUNICATION(ROADS)	1. PRADHAN MANTRI GRAM SADAK YOJANA(PMGSY)
		2. NABARD PROJECT
		3. CHIEF MINISTER GRAMA SADAK YOJANE(CMGSY)
		4. 12TH FINANCE COMMISSION - ROADS
	RURAL WATER SUPPLY AND SANITATION	1. MINI WATER SUPPLY SCHEME
		2. PIPED WATER SUPPLY SCHEME
		3. BOREWELLS WITH HAND PUMPS AND SARALA JAL SCHEME
		4. DESERT DEVELOPMENT PROGRAMME

		5. SUB-MISSION PROJECT
		6. SUVARNAJALA
		7. SWACHHA GRAMA YOJANE
SUVARNA GRAMODAYA	SUVARNA GRAMODAYA	1. SUVARNA GRAMODAYA YOJANE
PLAN MONITORING AND INFORMATION	PLAN MONITORING AND INFORMATION	1. KUGRAMA-SUVARNAGRAMA YOJANE
KARNATAKA RURAL WATER SUPPLY AND SANITATION AGENCY	KARNATAKA RURAL WATER SUPPLY AND SANITATION AGENCY	1. JALNIRMAL PROJECT
		2. SWAJALDHARA SCHEME

Source : http://rdpr.kar.nic.in/Schemes_frames.htm, Last updated:21-09-2007, accessed 07.06.2011

Annexure 7.c

Progress under Mukhya Mantri Grameena Raste Abhivruddi Yojane (CMGSY) during 2009-2010

(₹ in Lakhs)

Sl.No	Districts	Amount allocated	Expenditure upto 31.03.10	Physical progress (in Kms.)
1	Bagalkot	274.00	274.00	72.89
2	Bangalore (U)	184.00	184.00	7.81
3	Bangalore (R)	197.00	260.30	209.35
4	Belgaum	428.00	426.45	154.86
5	Bellary	383.00	285.26	136.49
6	Bidar	275.00	182.19	69.84
7	Bijapur	291.83	310.97	76.35
8	Chamarajnagar	202.00	179.97	81.77
9	Chikkamagalur	268.53	268.53	268.00
10	Chikkaballapur	208.74	279.95	108.00
11	Chitradurga	290.00	372.30	134.49
12	D.Kannada	167.20	267.20	79.80
13	Davanagere	266.00	448.40	166.18
14	Dharwad	226.00	226.00	36.70
15	Gadag	213.00	212.51	163.58
16	Gulbarga	600.00	144.96	126.40
17	Hassan	340.00	126.89	14.79
18	Haveri	336.00	336.00	168.05
19	Kodagu	114.00	1671.00	115.95
20	Kolar	243.00	242.89	114.66
21	Koppal	238.00	320.00	130.00
22	Mandya	320.00	360.30	89.64
23	Mysore	312.00	244.81	42.45
24	Ramangar	162.00	282.35	30.23
25	Raihcur	308.00	308.00	94.00
26	shimoga	273.59	1215.98	216.96
27	Tumkur	507.00	373.80	366.68
28	Udupi	109.00	189.00	70.18

29	Uttara Kannada	490.00	612.48	125.00
Lumpsum		6600.81	0.00	0.00
Total		14827.70	10606.49	3471.10

Source : Annual Report, RDPR, 2009-10

Annexure 7.d

Progress under Total Sanitation Campaign during 2009-2010

Sl. No.	Districts	Financial (₹ in lakhs)		Physical (Nos) Achievement			
		Target	Achievement	IHHL	Sanitary complex	School Toilets	Anganwadi
1	Bagalkot	81.00	76.24	85913	0	0	0
2	Bangalore – Rural	264.73	51.51	97464	11	100	0
3	Bangalore –Urban	66.00	0.62	9350	2	0	2
4	Belgaum	148.00	62.34	133887	6	0	0
5	Bellary	81.06	3.17	42996	0	0	25
6	Bidar	60.00	84.27	27424	2	0	0
7	Bijapur	162.00	97.64	20741	2	5	7
8	Chamarajanagar	73.00	119.06	20753	0	3	39
9	Chickamagalur	99.00	68.18	37127	0	0	0
10	Chitradurga	114.00	47.13	29010	6	0	0
11	Davangere	117.00	52.79	27175	4	0	52
12	Dharwad	61.00	125.60	44827	0	0	120
13	Gadag	81.00	48.26	20651	5	2	0
14	Gulbarga	243.00	55.00	24195	4	5	7
15	Hassan	81.00	100.38	55971	7	0	0
16	Haveri	172.00	126.00	23456	4	0	46
17	Kodagu	19.17	92.39	22159	7	1	6
18	Kolar	189.00	8.54	40965	0	57	78
19	Koppal	81.00	76.59	37952	10	0	0
20	Mandya	102.00	102.12	96531	6	0	0
21	Dakshina Kannada	70.00	52.25	0	16	0	0
22	Mysore	97.00	58.87	18318	0	0	58
23	Raichur	97.00	5.32	16858	2	0	60
24	Shimoga	30.40	30.40	0	0	49	39
25	Tumkur	162.00	75.98	133348	4	518	54
26	Uttara Kannada	53.00	13.70	9195	1	0	3
27	Udupi	678.00	6.00	25797	4	0	0
Total		3482.36	1640.35	1102063	103	740	596

Source : Annual Report, RDPR, 2009-10

Abbreviations:

AAY	Anthodaya Anna Yojana
ANM	Auxiliary Nurse Midwife
APL	Above Poverty Line
AR	Administrative Reforms
ARR	Average Rate of Realization
ASHA	Accredited Social Health Activist
ASSOCHAM	Associated Chambers of Commerce and Industry of India
ATDC	Apparel Training and Designing Centre
ATM	Automated Teller Machine
BIS	Bureau of Indian Standards
BPL	Below Poverty Line
BSDB	Bayalu Seeme Development Board
BWSSB	Bangalore Water Supply and Sewerage Board
C & AG	Comptroller and Auditor General
CADA	Command Area Development Authority
CAMPA	Compensatory Afforestation Management and Planning Authority
CE	Chief Executive
CEP	Continuing Education Program
CESCL	Chamundeshwari Electrical Supply Corporation Limited
CMGSY	Chief Ministers Gram Sadak Yojane
CNNL	Cauvery Neeravari Nigam Limited

CRF	Central Road Fund
CSO	Central Statistical Organization
CSS	Centrally Sponsored Scheme
DES	Department of Economics and Statistics
DPR	Detailed Project Report
DRDA	District Rural Development Agencies
EAP	Externally Aided Project
EBPL	Extra Below Poverty Line
EC	Empowered Committee
EMPRI	Environment Management Policy Research Institute
ESCO	Electricity Services Company
EWS	Economically Weaker Section
FD	Finance Department
FPI	Fiscal Policy Institute
FPS	Fair Price Shops
GDP	Gross Domestic Product
GIS	Geographical Information System
GoI	Government of India
GoK	Government of Karnataka
GP	Gram Panchayat
GPS	Global Positioning System
GSDP	Gross State Domestic Product
HESCOM	Hubli Electricity Supply Company

HIG	High Income Group
HKDB	Hyderabad Karnataka Area Development Board
HT	High Tension
HUDCO	Housing and Urban Development Corporation
HVDS	High Voltage Distribution Systems
IAY	Indira Awas Yojana
IBT	Increasing Block Tariff
ICT	Information and Communication Technology
IEI	International Energy Initiative
IHHL	Individual Household Latrines
IP	Irrigation Pump
ISEC	Institute for Social and Economic Change
ISHUP	Interest Subsidy for Housing Urban Poor
IT	Information Technology
JICA	Japan International Co-operation Agency
JnNURM	Jawaharlal Nehru National Urban Renewal Mission
JRY	Jawahar Rozghar Yojana
JUSCO	Jamshedpur Services Utility Company
KBB	Karnataka Bio Diversity Board
KBJNL	Krishna Bhagya Jala Nigam Limited
KCDC	Karnataka Cashew Development Corporation
KEONICS	Karnataka State Electronics Development Corporation Limited

KFDC	Karnataka Forest Development Corporation
KFRA	Karnataka Fiscal Responsibility Act
KHB	Karnataka Housing Board
KLAC	Karnataka Land Army Coportation
KLLADS	Karnataka Legislators Local Area Development Schemes
KNNL	Karnataka Neeravari Nigam Limited
KPCL	Karnataka Power Corporation
KPTCL	Karnataka Power Transmission Corporation
KRDCL	Karnataka Road Development Corporation Limited
KSFIDC	Karnataka State Forest Industries Development Corporation
KSFMBC	Karnataka Sustainable Forest Management and Biodiversity Conservation
KSPCB	Karnataka State Pollution Control Board
KSRSAC	Karnataka State Remote Sensing Applications Centre
KUWS&DB	Karnataka Urban Water Supply & Drainage Board
LDA	Lake Development Authority
LIG	Low Income Group
LPCD	Liters Per Capita Per Day
LPG	Liquefied petroleum gas
LT	Low Tension
MADB	Malnad Area Development Board
MAP	Medicinal and Aromatic Plants

MCC	Mysore City Corporation
MESCOM	Mangalore Electrical Supply Corporation Limited
MGIRED	Mahatma Gandhi Institute of Rural Energy and Development
MGNREGS	Mahatma Gandhi National Rural Employment Guarantee Scheme
MIG	Middle Income Group
MLD	Million Litres Per Day
MMR	Multi Level Review
MoEF	Ministry of Environment and Forests
MPIC	Monthly Programme Implementation Calender
MTFP	Medium Term Fiscal Plan
MU	Million Units
MUDA	Mysore Urban Development Authority
MWRRA	Maharashtra Water Resources Regulatory Authority Act.
NABARD	National Bank for Agriculture and Rural Development
NGO	Non Governmental Organization
NGP	Nirmal Gram Puraskar
NIPFP	National Institute of Public Finance and Policy
NRHM	National Rural Health Mission
NRLM	National Rural Livelihood Mission
NTFP	Non Timber Forest Products
O&M	Operations and Maintenance

OECD	Organization for Economic Co-operation and Development
OPA	Output and Performance Analysis
PCCF	Principal Chief Conservator of Forest
PDS	Public Distribution System
PEAK	Performance Evaluation Authority of Karnataka
PIM	Participatory Irrigation Management
PMGSY	Pradhan Mantri Gram Sadak Yojana
PPB	Programme Performance Budget
PPP	Public Private Partnership
PSA	Performance Service Agreements
PSU	Public Sector Undertaking
PWD	Public Works Department
RDPR	Rural Development and Panchayath Raj
RFD	Results Framework Document
RGNP	Rajiv Gandhi National Park
RGRHCL	Rajiv Gandhi Rural Housing Corporation
RIDF	Rural Infrastructure Development Fund
RLEGP	Rural Labour Employment Guarantee Programme
RR	Revenue Registration
RUDSETI	Rural Electronics Development Corporation Limited
SC & ST	Schedule Caste & Schedule Tribe
SDP	Special Development Programme

SEAC	State Level Expert Appraisal Committee
SEIAA	State Environment Impact Assessment Authority
SGSY	Swarna Jayanthi Gram Swarojgar Yojana
SHG	Self Help Group
SIRD	State Institute of Rural Development
SPU	State Power Utilities
SPV	Special Purpose Vehicle
SPV	Special Purpose Vehicle
SSR	Sanctioned Schedule of Rates
STEM	Symbiosis of Technology , Environment and Management
T & D	Transmission and Distribution
TECSOK	Technical Consultancy Services Organization of Karnataka.
TFC	Thirteenth Finance Commission
TP	Taluk Panchayat
TSC	Total Sanitation Campaign
UDD	Urban Development Department
UFW	Unaccounted For Water
UID	Unique Identification
ULB	Urban Local Body(ies)
USAID	United States Agency for International Development
VAT	Value Added Tax
VFC	Village Forest Committee

VVWW	Vani Vilas Water Works
VWSC	Village Water and Sanitation Committee
WALMI	Water and Land Management Institute
WPI	Wholesale Price Index
WUCs	Water Users Co-operatives